

THE LONG FALL BY A. BERTRAM CHANDLER

July  
1977

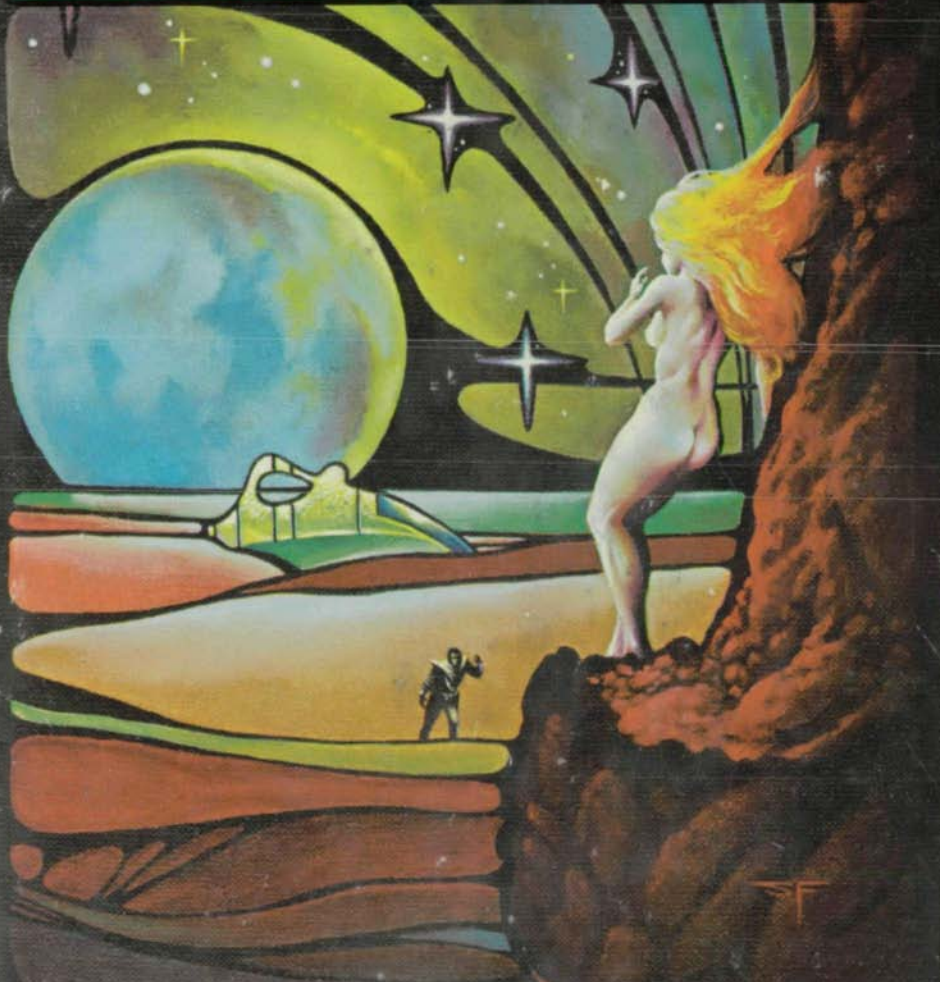
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# AMAZING SCIENCE FICTION

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# Can One Dollar Really Change Your Life?

At last, the secret of the Morgana Candle revealed.

## Some People Have It All

Ever notice how some people seem to have their days filled with life's riches? They travel, have money, are healthy, own big homes, have good jobs, family happiness. Ever been surprised that these people often are no smarter, harder working or better educated than you?

## The Secret

The secret is something that we call "luck." The Indians call it "Karma," the tribes of South America call it "Ritpla." But what is this...and can it be changed?

## My Story

A few years ago my life was average... or a little worse. I had a low paying job, lots of bills, and frequent unexplained stomach pains. I spent a good deal of time wondering how I could really make my life work well. How I too could experience the joys of life. I tried study, magic amulets, changing jobs. But the more I "tried" the more things stayed the same.

## Then A Strange Happening

One bleak night I was walking in downtown New York. The snow was a foot deep and I was feeling depressed. I suddenly tripped, fell face down in the snow. The next thing I knew a slim old man was helping me up. The gentleness of his face overwhelmed me; yet the strength of his hand was fabulous.

## Very Strange

As I got up he greeted me by name. I asked how he knew my name, he only smiled. Then he handed me a brown paper bag. He said there is something inside for me. We walked together for a few blocks without saying anything. It all seemed strange to me. As we turned a corner suddenly my new "friend" wasn't there. I looked around. As mysteriously as he arrived he was gone.

## Then a Miracle

When I got home I opened the paper bag and I found a small candle with a note. The note advised me to burn the candle and repeat a two sentence prayer. At first I was going to throw it away. Somehow I was overcome with a strong desire to follow the instructions. I burnt the candle, repeated the prayer and promptly fell asleep. When I awoke I felt great...In fact better than I ever felt in my life.

## Instant Success

My life, from that night on just seemed to get better and better. That day I got a huge raise, a total surprise. My health seemed perfect. I was in absolute tune with the Universe.

## One Lucky Thing After Another

Day after day things seemed to get better. Income tax refunds, family harmony, big job offers. It was like a dream.

## The strange true story of Jeffrey Prescott



An invitation to Joy,  
Health and untold  
Wealth.

## My Friend Reappears

About a month later I was sitting in a movie theatre enjoying my new found joy. Suddenly I turned to my right and he was there again. This time clutching a slightly larger bag. He told me a story so amazing I'm frightened to repeat it. As he softly smiled he talked in almost a whisper. "Jeffrey, I want to share the secret of the Morgana Candle...and I want you to share it with the world." On a piece of yellowing paper was the place to buy candles. He said to say nothing when I went to buy candles and sell it to anyone that was sincere in improving their life. He told me *Never* charge more than *A Dollar* for a candle and be sure to give each buyer the secret prayer. Then he smiled gently and added "Burn a Candle when you feel the need. For some a candle will last a lifetime for others one a month is perfect...they will know."

## My Sales Begin

We both sat quietly for the rest of the movie. I got up and left. The next day I went to the address on the slip of papers and got a supply of candles. Most of my friends scoffed but a few had seen my new life begin.

## One Startling Event After Another

The first buyer called me the next morning and told me of his cured arthritis. Here are some actual other stories over the last years

- A school teacher finds money for a new house.
- A businessman's company increases 10 fold in one year.
- An elderly woman finds love the first time.
- A young housewife has new joy from her husband.
- A "C" student starts getting "A" grades.
- A senior citizen finds his debts disappear.
- A married couple find their marriage start to work.

## For You

And now here's the opportunity for you to share in this blessed flame of happiness.

## A Simple Offer

Send me two dollars and I'll send you two Morgana Candles... And the prayer.

## Absolute Guarantee

Burn one candle. If your life isn't noticeably better just return the other one. I'll refund the money you paid for *BOTH* candles even though you've returned only one. What could be fairer? Of course, no one can guarantee you love, health and wealth but you have nothing to lose!

## About Me

I don't know why I was chosen but let me tell you a few interesting facts. Since discovering the Morgana Candle my life is perfect. I have all the money I need. Money, love, good health seem strangely attracted to me. I want you to know I'd like to share it all with you, on a no risk offer. But if you don't want it it's really okay with me. I love everyone and I love you just as you are regardless of whether or not you'd like a Morgana Candle.

## Why It Works?

Many ask why the Morgana Candle works and who the old man was. Frankly I don't know. I only know that it works.

## Buy More Than Two

If you'd like more than two (For your own life or for gifts) the same guarantee applies. Burn the first one...if it doesn't work return the other candles for a full refund including the first.

## You Have Nothing To Lose

Order today... a new world may be waiting for you.

## JEFFREY PRESCOTT

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Address \_\_\_\_\_

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New York residents must add tax.

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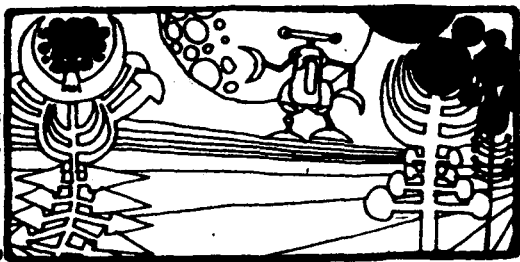
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**TED  
WHITE**

## **EDITORIAL**



*This issue—which is, coincidentally, our 51st Anniversary issue—I'm turning this space over to Thomas Perry, who has researched an almost mythological event in the early history of this magazine: the occasion on which Hugo Gernsback, who founded AMAZING, lost control of the magazine. Perry, a long-time fan, calls his piece "Mythology Deluxe," for reasons shortly to become apparent . . .*

PERHAPS THE MOST traumatic event in the history of science fiction occurred in 1929, three years after the founding of this magazine under its original title of AMAZING STORIES. Its publisher—Experimenter Publishing Company, headed by Hugo Gernsback—went bankrupt.

Like traumas occurring in human infancy, this bankruptcy left deep psychological scars. When the memory of it is not totally submerged, it is glossed over or distorted by the growing numbers of science fiction historians. Just leafing through books on my shelves has turned up several conflicting versions—Sam Lundwall's version, Franz Rottensteiner's version, Fred Pohl's version, James Gunn's version.

The most elaborate version yet was published last year in David Kyle's book *A Pictorial History of Science Fiction*, and is credited to Sam Moskowitz. This one has it that a conspiracy forced a healthy solvent company into bankruptcy through a strange

quirk in the law of the time. To back up his claim that Experimenter Publishing was not insolvent, Moskowitz alleges that the creditors were paid \$1.08 on the dollar and that the *New York Times* referred to this as "bankruptcy deluxe."

All these differing versions do have one thing in common. They are all false.

Now that the magazine that Gernsback founded in 1926 has celebrated its 50th anniversary and science fiction has grown up to become a permanent feature of modern life, perhaps it is time for us to destroy the myths about the bankruptcy and take a look at the truth.

When I asked Dave Kyle at Midamericon for more background on Moskowitz's intriguing story, Dave replied that to his knowledge it had never been challenged and suggested I look it up in the *Times* if I doubted it. Several months later, finding myself with a free evening in the vicinity of the Chicago Public Library, I did so.

I didn't really expect to find much. From my newspaper days I knew that routine bankruptcies do not make good copy; the business or person involved doesn't want the coverage and most readers don't care to read about failure, unless it is unusual in some way or affects them personally. That strange quotation—"bankruptcy deluxe"—sounded like an opinion that would have to be expressed on the editorial page (if the words were real-

(cont. on page 125)

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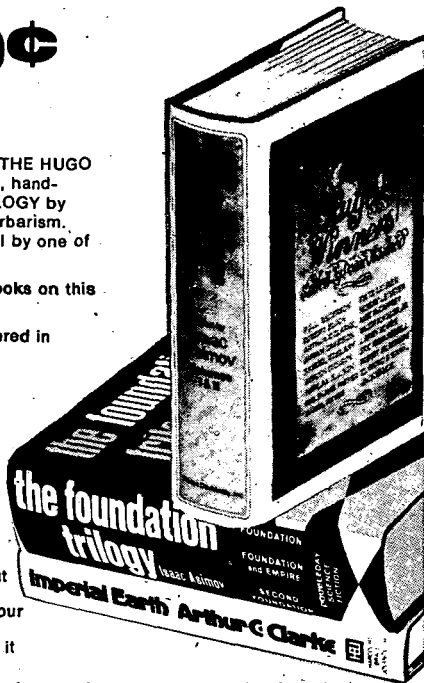
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A. Bertram Chandler is the dean of Australia's science fiction writers and returns to this magazine after far too long an absence with a puzzle: How could a planetary colony based on religious ideals have regressed to primitive squalor? What caused—

# THE LONG FALL

## A. BERTRAM CHANDLER

“YOU ARE getting the feel of the ship, Captain?” asked the Baroness.

Grimes, with a mouthful of tea, could not reply at once. He hastily swallowed the almost scalding fluid and was embarrassed by the distinctly audible gurgle. He put the fragile cup down in its saucer with too much of a clatter.

“Perhaps,” he admitted cautiously, “the ship is getting the feel of me . . .” He realised that she was regarding him even more coldly than usual and hastily added, “Your Excellency.”

“But surely, to a spaceman of your experience, a ship is only a ship,” she said.

You know bloody well that this one isn't, he thought mutinously.

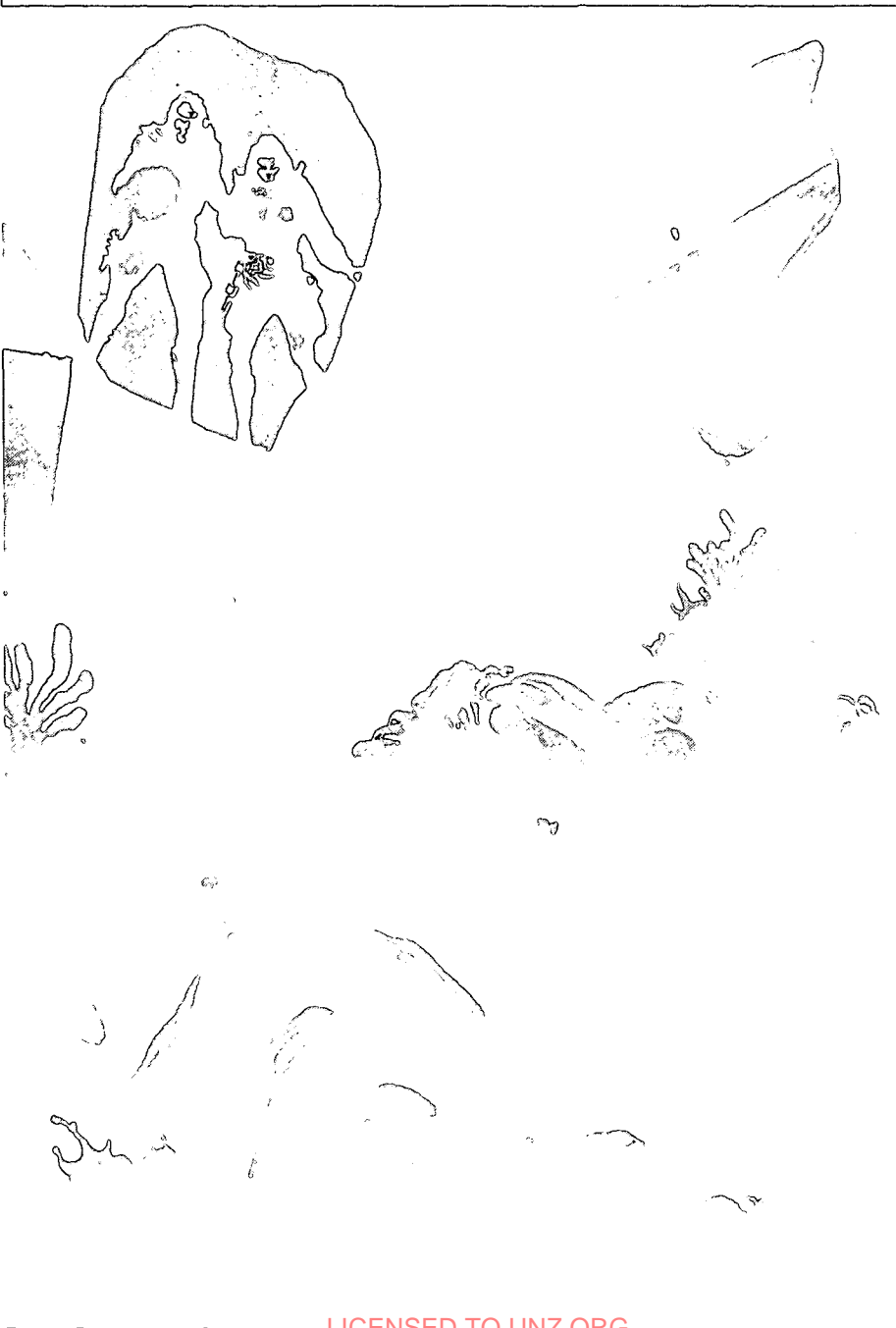
To begin with, a normal ship is not built of gold—even though that precious metal, its molecular structure rearranged by the Electran metallurgists, is superior to any of the alloys usually utilised by naval architects. And a normal ship is not automated to the extent that *The Far Traveller* was. A normal ship does not possess a mind of her own—although many generations of spacemen, and of airmen and seamen before them, have half believed that such is the case. A

normal ship, come to that, does not have a Master who is on the run from the long, punitive arm of the Interstellar Federation's Survey Service as ex-Commander Grimes, lately captain of IFSS *Discovery*, most certainly was.

A normal ship does not boast an Owner's Suite decorated and furnished in a style appropriate to the salon of a well-heeled titled lady in Eighteenth Century France . . .

Michelle, Baroness d'Estang, was more than merely well-heeled. She was filthy rich; as a member of the financial elite who had made their home on El Dorado she could not possibly have been anything else. Her spaceyacht, *The Far Traveller*, had been built to her own specifications by Astronautics and Electronics of Electra, a yard specialising in the construction of non-standard vessels. The Baroness had not intended to employ any crew whatsoever; the pilot-computer was programmed to cope with almost every possible astronomical problem. But Lloyd's of London had refused to supply insurance cover unless a qualified, flesh-and-blood Master were on the Register. A Captain Billinger had been the first such and he had been happy to

Illustrated by STEVE FABIAN



resign during the vessel's stay on Botany Bay. Grimes, anxious to get away from a planet on which his popularity had diminished, had replaced him.

So here he was, seated on a spindly-legged chair in the Baroness's boudoir, sipping tea that was far too weak for his taste. He was attired in a uniform that he hated, all purple and gold, that would have been more appropriate to a Strauss operetta than to a spaceship—but one of the conditions of his employment was that he wear his employer's livery. What rankled most was that his captaincy was only nominal. To begin with, the Baroness knew far too much. As Billinger had coarsely said, she shoved her tits into everything. And then the ship herself had a brain—a real brain, although nonorganic—and a personality. Definitely female it was, and . . . bitchy. Billinger had referred to it—*her*—as Big Sister. The nickname was apt. After lift-off from Botany Bay she had set her own trajectory for Farhaven; one of the comparatively recently rediscovered Lost Colonies that the Baroness was visiting in search of material for her doctoral thesis.

And what did *she*, a typical rich bitch from El Dorado, want a doctorate for? Grimes wondered, regarding her over the gold rim of his teacup. She was ornamental enough without any academic titles. She was languidly at ease on her chaise longue, attired, as usual, in a filmy robe that revealed more than it concealed. Her dark auburn hair was braided into a coronet in which clusters of diamonds sparkled. She could have been posing for a portrait of a decadent aristocrat from almost any period of Man's long history. Decadent she may have looked—but Grimes knew full well

that the rulers of El Dorado were tough, ruthless and utterly selfish.

She said, looking steadily at Grimes with her big, violet eyes, "We have decided to let you handle the landing."

He replied, as nastily as he dared, "I am sure that the ship can manage by herself quite nicely."

She said, "But you are being paid—handsomely, I may add—to do a job, Captain Grimes. And this Farhaven is a world without radio, without Aerospace Control. During your years in command in the Survey Service your brain has been programmed to deal with such situations. The ship's brain has not been adequately programmed in that respect." She frowned. "As you already know, I have brought such deficiencies in programming to the attention of the builders on Electra. Fortunately the guarantee has not yet expired."

The golden robot butler refilled her cup from a golden teapot, added cream from a golden jug, sugar from a golden bowl. Grimes declined more tea.

He said; "Please excuse me, Your Excellency. Since I am to make the landing, I should like to view again the records made by *Epsilon Pavonis* and *Investigator* . . ."

"You may leave, Captain," said the Baroness.

Grimes rose from his chair, bowed stiffly, went up to his far from uncomfortable quarters.

HE SAT BEFORE the playmaster in his day cabin watching the pictures on the screen, the charts, the presentation of data. As he had done before, as soon as he had learned of *The Far Traveller's* destination, he tried to put himself in the shoes of Captain Lenti-



gan of *Epsilon Pavonis*, one of the Interstellar Transport Commission's tramps, who had first stumbled upon this planet. *Epsilon Pavonis* had been off trajectory, with a malfunctioning Mannschenn Drive. As far as Lentigan was concerned Farhaven had been merely a conveniently situated world on which to set down to carry out repairs and recalibration. He was surprised to find human inhabitants, descendants of the crew and passengers from the long-ago missing *Lode Venturer*. He had reported his discovery. Then *Investigator* was sent to make a proper survey. Her captain, a Commander Belton, had run into trouble. And as Farhaven was of no commercial or strategic importance to any of the spacefaring races its people were left to stew in their own juice.

Grimes allowed himself to wonder what they would make—if anything—of the Baroness, himself and Big Sister . . .

**G**RIMES SAT in the captain's chair in *The Far Traveller's* control room. The Baroness occupied the chair that, in a normal ship, would have been the seat of the second in command. She was dressed in standard spacewoman's uniform—white shorts and shirt, but without insignia. She needed no trappings of rank; in the functional attire she was no longer the decadent aristocrat but still, nonetheless, the aristocrat.

The yacht was not equipped with robot probes—a glaring omission that, said the Baroness, would cost that shipyard on Electra dearly. There were, however, sounding rockets, a necessity when landing on worlds with no spaceport facilities; a streamer of smoke is better than nothing when there are no Aerospace Control reports on wind direction and

velocity—and at least as good as a primitive windsock.

*The Far Traveller* dropped steadily down through Farhaven's atmosphere. She was in bright sunlight although the terrain below her was still dark. Grimes had told Big Sister that he wanted to land very shortly after sunrise—which was S.O.P. for the Survey Service. The almost level rays of a rising luminary show up every smallest irregularity of a surface and, when a landing is being made on a strange world, there is a full day after the set-down to make initial explorations and to get settled in.

Grimes, during the preliminary orbitings of Farhaven, had selected his landing site—an unforested plain near the mouth of one of the great rivers, a stream that according to the charts was called the Jordan. *Epsilon Pavonis* had set down there. So had *Investigator*. A little way upriver was what Captain Lentigan had referred to as a small town and Commander Belton as a large village. Neither Lentigan nor Belton had reported that the natives were hostile; their troubles had been with their own crews. None of the material that Grimes had seen went into great detail but he could fill in the gaps from his imagination. He had experienced his own troubles with his own crew on Botany Bay.

Big Sister broke into his thoughts. She said, her voice metallic yet feminine, seeming to come from everywhere and nowhere, "I would suggest that I fire the first sounding rocket, Captain."

"Fire at will," ordered Grimes.

(In a normal ship some alleged humourist would have whispered, "Who's Will?")

He watched in the screen the arrow of fire and smoke streaking downwards. Its trail hardly wavered.

"Ideal conditions, Captain," commented the Baroness.

"It would seem so, Your Excellency," agreed Grimes.

But from his own, highly personal viewpoint they were far from ideal. Over many years he had regarded his pipe as an essential adjunct to shiphandling—and for those many years he had been absolute monarch in his own control room. But the Baroness neither smoked nor approved of smoking in her presence.

He allowed his attention to stray briefly from the controls to what he could see of the sunlit hemisphere through the viewports. Farhaven was a wildly beautiful world but, save for patches of fertility along the rivers and coasts, it was a barren beauty. To the east, beyond the narrow sea, reared great, jagged pinnacles, ice-tipped, and to the west similar peaks were already scintillant in the first rays of the rising sun. Unless there were considerable mineral wealth about all that this planet would be good for would be a holiday resort—and it was too far from anywhere for the idea to be attractive to those shipping companies involved in the tourist trade.

Big Sister said, "I would suggest, Captain, that you pay more attention to your controls. It was, after all, with some reluctance that I agreed to let you handle the landing."

Grimes felt his prominent ears burning as he blushed furiously. He thought, *I'd like five minutes alone back on Electra with the bastard who programmed this brass bitch* . . . He saw, in the screen, that the sounding rocket had hit and that its luminous smoke was rising directly upwards. But it was thinning, would not last much longer.

He ordered, "Fire two."

Big Sister said, "It is not necessary."

"Fire Two!" snapped Grimes. He added, grudgingly, "Wind can rise suddenly, especially just after sunrise, especially in country like this."

"Fire two," acknowledged Big Sister sullenly as the second rocket streaked downwards, hitting just as the first one expired.

And there *was* wind, Grimes noted with smug satisfaction, springing up with the dawn. The luminescent pillar of smoke wavered then streamed seawards. Grimes applied lateral thrust, kept the flaring rocket head in the centre of the stern view screen.

The sun came up relative to the land below the ship, topping the jagged rim of the range to the eastward. The plain toward which *The Far Traveller* was dropping flared into colour—blue-green with splotches of gold and of scarlet, outcroppings of white from which extended long, sharply defined black shadows. *Boulders* . . . thought Grimes, stepping up the magnification of the screen. Yes, boulders, and the red and yellow patches must be clumps of ground-hugging flowers since they cast no shadows. The second rocket, still smoking, was almost in the centre of one of the scarlet patches; there was no unevenness of the ground there to worry about.

The ship dropped steadily. Grimes was obliged to make frequent small adjustments to the lateral thrust controls; that wind was unsteady, gusting, veering, backing. He reduced the rate of descent until *The Far Traveller* was almost hovering.

"I am not made of glass, you know," remarked Big Sister conversationally.

"I had hoped to make the landing some time before noon," said the

Baroness.

Grimes tried to ignore them both. *That bloody wind!* he thought. *Why can't it make up its mind which way to blow?*

He was down at last—and the ship, suddenly and inexplicably, was tilted a full fifteen degrees from the vertical. She hung there—and then, with slow deliberation, righted herself, far more slowly than she should have done with the lateral thrust that Grimes was applying. There was no real danger, only discomfort and, for Grimes, considerable embarrassment. He had always prided himself on his shiphandling and this was the first time that he had been guilty of such a bungled landing.

When things had stopped rattling and creaking the Baroness asked with cold sarcasm, "Was that necessary, Captain?"

Before he could think of a reply Big Sister said, "Captain Grimes was overly cautious. I would have come down fast instead of letting the wind play around with me like a toy balloon. I would have dropped and then applied vertical thrust at the last moment."

*And you, you cast-iron, gold-plated bitch,* thought Grimes, *deliberately made a balls-up of my landing . . .*

"Perhaps, Captain," said the Baroness, "it will be advisable to allow the ship to handle her own lift-offs and set-downs from now on."

The way she said it there wasn't any "perhaps" about it.

**B**IG SISTER carried out the routine tests for habitability. The captains of *Epsilon Pavonis* and *Investigator* had reported the atmosphere better than merely breathable, the water suitable for drinking as well as for washing in

and sailing ships on, a total absence of any micro-organisms capable of causing even mild discomfort to humans, let alone sickness or death. Nonetheless, caution is always essential. Bacilli and viruses can mutate—and on Farhaven, after the landing of *Lode Venturer*, there had been established a new and sizeable niche in the ecology, the bodies of the original colonists and their descendants, just crying out to be occupied. The final tests, however, would have to wait until such time as there was a colonist available for examination.

Big Sister said, "You may now disembark. But I would recommend . . ."

Grimes said, "You seem to forget that I was once a Survey Service captain. Landings on strange planets were part of my job."

"You are no longer in the Survey Service, Captain," Big Sister reminded him.

The Baroness smiled maliciously. "I suppose that we may as well avail ourselves of Captain Grimes' wide range of experience. Quite possibly he was far better at trampling roughshod over exotic terrain than bringing ships to a gentle set-down prior to the extra-vehicular activities." She looked away from Grimes. "Big Sister, please have the pinnace waiting for us. We shall board it from the ground: Oh, and an escort of six general purpose robots. Armed."

"Am I to assume, Your Excellency," asked Grimes stiffly, "that you are placing yourself in command of the landing party?"

"Of course, Captain. May I remind you that your authority, such as it is, does not extend as much as one millimetre beyond the shell of this ship?"

Grimes did not reply. He watched her sullenly as she unbuckled herself

from her seat, left the control room. He unsnapped his safety belt, got up, went down to his quarters, immediately below and abaft control. He found that his robot stewardess had already laid out a uniform of tough khaki twill with shoulder boards of gold on purple, gold-braided cap, boots, a belt with attached holsters. He checked the weapons. These were a Minetti projectile pistol—as it happened his favourite personal weapon—and a hand laser. They would do. He changed slowly. Before he was finished the too familiar voice came from the speaker of the playmaster in his day cabin, "Captain Grimes, Her Excellency is waiting for you."

He buckled on the belt, went out to the axial shaft, rode the elevator down to the after airlock. He walked down the golden ramp to the blue-green grass. The pinnacle was there, a slim, torpedo shape of burnished gold. The Baroness was there, in khaki shirt and breeches and high boots, looking like a White Huntress out of some archaic adventure movie. The general purpose robots were there, drawn up in a stiff line, staring at nothing. From belts about their splendidly proportioned metal bodies depended an assortment of hand weapons.

"We are waiting," said the Baroness. "Now that you are here, will you get the show on the road?"

"I thought you said that you were to be in command, Your Excellency," Grimes reminded her.

"I am in command, but I do not believe in keeping a dog and doing my own barking," she told him.

Grimes flushed angrily. "Your orders?" he asked.

"To take this pinnacle to the settlement mentioned by *Epsilon Pavonis*

and *Investigator*." Then, when Grimes made no immediate move, "Don't just stand there. *Do something.*"

He turned to the escorting robots, tried to imagine that they were Survey Service marines. "Embark!" he ordered sharply.

The automata turned as one, strode in single file to the pinnacle's airlock, stepped aboard.

He said to the Baroness, "After you, Your Excellency."

He followed her into the pinnacle. She took the co-pilot's seat in the control cab. The robots were already standing aft, in the main cabin. The airlock doors shut while he was still making his way to his own chair. He noted that the Baroness had not touched the console before her. He sighed. This was Big Sister again, showing him who was really in command.

He buckled himself into his seat. Before he was finished the voice of the ship came from the transceiver, "Proceed when you are ready, Captain Grimes."

The inertial drive was already running, in neutral. He switched to vertical thrust, lifted. The river was ahead; in the bright sunlight it was a ribbon of gleaming gold winding over the blue-green grasslands. There was altogether too much gold in his life these days he thought. He flew until he was directly over the wide stream then turned to port, proceeding inland at an altitude of about fifteen metres. Ahead of him were the distant, towering ranges, their glittering peaks sharp against the clear sky.

The Baroness was not talkative. Neither was Grimes. He thought, *If those were real marines back there they'd be making enough chatter for all of us.*

He concentrated on his piloting. The river banks were higher now, rocky, sheer, with explosions of green and gold and scarlet and purple where flowering shrubs had taken hold in cracks and crevices. He considered lifting the pinnacle to above cliff-top level then decided against it. While he was here he might as well enjoy the scenery. There was little enough else to enjoy.

The canyon became deeper, narrower, more tortuous. And then, after Grimes had put the pinnacle through an almost right angled turn, it widened. The actual river bed was still relatively narrow but, strung on it like a bead, was an oval valley, lushly fertile, bounded by sheer red cliffs unbroken save for where the stream flowed in and out.

It was as described in the two reports. The village was not. It was utterly deserted, its houses delapidated, many of them apparently destroyed by fire at some past date. Shrubs and saplings were thrusting up through the charred ruins.

Grimes set the controls for hovering, took the binoculars from their box to study the squalid settlement. There were few houses of more than one storey. The structural material was mud or clay, reinforced with crude frames of timber. The windows were unglazed but from some of them filthy rags, the remains of blinds or curtains, fluttered listlessly in some faint stirring of the air.

The Baroness had found her own glasses, was staring through them.

She said softly, "A truly Lost Colony . . . And we have come too late to find any survivors . . ."

A voice—that voice!—came from the transceiver.

"May I suggest, Your Excellency, that you observe the cliff face to the

north of your present position?"

Big Sister, thought Grimes, was still watching. She would have her sensors in and about the pinnacle and every one of the robots was no more—and no less—than an extension of herself.

He turned the boat about its short axis to facilitate observation. He and the Baroness studied the forbidding wall of red rock. It was pitted with dark holes. The mouths of caves? He thought that he could detect motion in some of them. Animals? And then a human figure appeared from one of the apertures and walked slowly along a narrow ledge to the next cave mouth. It was naked. It was a woman, not old but not young, with long, unkempt hair that might, after a thorough wash, have been blonde. The most amazing thing about her was her apparent lack of interest in the strange flying machine that was shattering the peace of the valley with its cacophonous engine beat. Although it was quiet inside the pinnacle—its builders had been lavish with sonic insulation to protect the delicate ears of its aristocratic owner—the racket outside, with the arhythmic clangour of the inertial drive echoing and re-echoing between the cliff faces, must have been deafening.

Then she did turn to look at the noisy intruder. Somehow her attitude conveyed the impression that she was not very interested, that she wished the clattering thing would go away. Grimes studied her through his binoculars. Her face, which might have been pretty if cleaned and given a few slight cosmetic touches, was that of a sleepwalker. The skin of her body, under the dirt, was pallid. That was strange. People who habitually went naked, such as the Arcadian naturists, were invariably deeply

tanned.

She turned again, walked slowly into the cave mouth.

Three children, two girls and a boy, came out on to another ledge. They were as unkempt as the woman, equally incurious. They picked their way down a narrow pathway to ground level, walked slowly to one of the low bushes. They stood around it, picking things—nuts? berries?—from its branches, thrusting them into their mouths.

The Baroness said, addressing Grimes almost as though he were a fellow human being, "As you know, *Social Evolution in the Lost Colonies* is the title of my thesis. But this is devolution. From spaceship to village of mud huts . . . From mud huts to caves . . ."

"Caves," said Grimes, "could be better than mud huts. Less upkeep . . ."

"Indeed?" Her voice was cold again. "Put us down, please. Close to those children but not close enough to alarm them."

If they were going to be alarmed, thought Grimes, they would have been alarmed already. Surely they must have seen the pinnacle, must be hearing it. He landed about ten metres from the filthy urchins. They did not look away from whatever it was that they were doing.

The airlock doors opened and the little ladder automatically extended. The Baroness got up from her seat. Grimes put out a hand to detain her. She scornfully brushed it aside.

He said, "Wait, Your Excellency. The robots should disembark first, to draw the fire. If any."

"If any," she repeated derisively.

She pushed past him, jumped down from the airlock to the ground. He followed her. The robots filed out on

the heels of the humans. Grimes stood there taking stock, both pistols drawn, the Minetti in his right hand and the laser in his left. He stared up at the cliff face, at the caves. There were no indications of any hostile action. The Baroness sneered silently. Grimes returned his weapons to their holsters.

"Are you sure," she asked, "that you don't want to shoot those children?"

Grimes made no reply, followed her as she walked slowly towards the little savages clustered around the shrub. The GP robots followed him. The children ignored the intruders, just went on stolidly plucking berries—if berries they were—and thrusting them into their mouths.

They were unprepossessing brats—skinny, dirty, with scabbed knees and elbows, long, tangled, filthy hair. And they stank, a sour effluvium that made Grimes want to breathe through his mouth rather than through his nose. He saw the Baroness's nostrils wrinkle. His own felt like airtight doors the instant after a hell-piercing missile strike.

He looked at the berries that were growing so profusely on the bush. Berries? Elongated, bright purple berries? But berries do not run to a multiplicity of wriggling legs and twitching antennae. Berries do not squirm as they are inserted into hungry mouths. The eaters chewed busily while a thin, purple ichor dribbled down their filth-encrusted chins.

It was no worse than eating oysters, thought Grimes, trying to rationalise his way out of impending nausea. Or witchetty grubs . . .

"Children," said the Baroness in a clear, rather too sweet voice.

They ignored her.

"Children," she repeated, her voice



louder, not so sweet.

They ignored her.

She looked at Grimes. Her expression said, *Do something.*

He put out a hand to grasp the boy's shoulder. He was careful not to grip hard or painfully. This required no effort; his own skin was shrinking from contact with that greasy, discoloured integument. He managed to turn the child to face him and the Baroness. Then he was at a loss for anything to say. "Take me to your leader," did not seem right somehow.

"Please take us to your parents," said the Baroness.

The boy went on chewing and swallowing, then spat out a wad of masticated chitin from which spines and hairs still protruded. It landed on the toe of Grimes' right boot. He kicked it away in revulsion.

"Take us to your parents," repeated the Baroness.

"Wha'?"

"Your parents." Slowly, patiently, "Your mother. Your father."

"Momma. Fadder. No wake."

"He says," volunteered Grimes, "that his mother and father are sleeping."

She said, "A truly blinding glimpse of the obvious, Captain. But, of course, you are an expert on first contacts, are you not? Then may I ask why it did not occur to you to bring along bright trinkets, beads and mirrors and the like, as gifts to people who are no better than savages?"

"I doubt if they could bear to look at themselves in a mirror, Your Excellency," said Grimes.

"Very, very funny. But you are not employed as court jester."

Slowly she removed her watch from her left wrist. It was a beautiful piece of work, jewel rather than instrument—although it was fantasti-

cally accurate and in the extremely unlikely event of *The Far Traveller's* chronometers all becoming nonoperational could have been used for navigational purposes. Its golden bracelet was a fragile seeming chain, its thin case was set with diamonds that flashed dazzlingly in the sunlight. She dangled it temptingly before the boy's eyes. He ignored it. He shrugged out of Grimes' grip, pulled another of the repulsive grubs from the bush and thrust it into his open mouth.

But one of the girls was more interested. She turned, made a sudden snatch for the trinket. The Baroness was too quick for her, whipping it up and out of reach.

"Gimme!" squealed the unlvely child. "P'etty! P'etty! Gimme!"

"Take . . . us . . ." enunciated the Baroness slowly and carefully, "to . . . Momma . . . Fadder . . ."

"Gimme! Gimme! Gimme!"

The Baroness repeated her request. It seemed to be getting through. The girl scowled, then slowly and deliberately gathered a double handful of the wriggling purple horrors from the branches of the bush. Then, reluctantly, she led the way to the cliff face. She paused frequently to look back. With her busily working mouth, with that sickening slime oozing from between her lips she was not a pretty sight.

She reached the foot of the rock wall. There was a ledge running diagonally up its face, less than a metre wide, a natural ramp. She paused, looked back at Grimes and the Baroness, at the marching robots. An expression that could have been doubt flickered across her sharp featured face. The Baroness waved the watch so that it flashed enticingly in the sunlight. The girl made a beckoning gesture then started up the path.

The Baroness followed, almost as surefooted as her guide. Grimes followed the Baroness. The ledge was narrow, its surface uneven. There was no handhold and he realised unhappily that on some stretches he would actually be leaning outwards, over a sheer drop, as he climbed. The robots began to come after Grimes. There was a sharp *crack!* as rock broke away from the edge of the path, a clatter of falling fragments.

The Baroness called, "Robots! Wait for us on the ground!" Then, to Grimes, "You should have realised, Captain, that their weight would be too much for this ledge."

They climbed—the half grown girl, the Baroness, Grimes.

They negotiated a difficult crossing of the natural ramp with a more or less horizontal ledge. Fortunately the cliff face here was scarred with cracks, affording foot- and handholds.

They climbed.

Once Grimes paused to look back and down—at the gleaming, golden pinnacle, at the equally refulgent robots. It was an exaggeration he knew, but they looked to him like ants standing beside a pencil dropped on to the grass. He was not, after all, so very high above ground level—only high enough to be reasonably sure of breaking his neck if he missed his footing and fell.

After that he kept on looking up and ahead—at the Baroness's shapely rump working in the sweat-stained khaki of her breeches, at the meagre buttocks of the naked girl. Neither spectacle was particularly erotic.

They climbed, crossing another horizontal ledge and then, eventually, turning off the diagonal path on to a third one. It was as narrow as the natural ramp.

Ahead and to the left was the

mouth of one of the caves. The girl slipped into it; the Baroness followed. Grimes followed her. Less than two metres inside the entrance was an almost right-angled turn. The Baroness asked, "Did you bring a torch?" Then, "But of course not. That would have required some foresight on your part."

Grimes, saying nothing, pulled his laser pistol from its holster, thumbed the selector switch to broadest beam. It would serve as an electric torch although wasteful of energy and potentially dangerous.

But it was not required, although it took a little time for his eyes to become used to the dim illumination after the bright sunshine outside. There was light here—wan, eerie, cold. It came from the obscenely bloated masses of fungus dependent from the low cavern roof, growing in bulbous clusters from the rocky walls. The girl led them on, her thin body pallidly luminescent. And there were other bodies sprawled on the rock floor, men and woman, naked, sleeping . . .

*Or dead . . .* thought Grimes.

No, not dead. One of them, a grotesquely obese female, stirred and whinnied softly, stretched out a fat arm to a nearby clump of the fungus. She broke off a large hunk, stuffed it into her mouth, making a disgusting gobbling sound, swallowing noisily. She sighed gustily, flopped back to her supine position. She snored.

There were other noises—eructations, a brief trickling sound, a splattering. And there was the . . . *stink*. Grimes trod in something. He knew what it was without looking. Sight is not the only sense.

Still the girl led them through the noisome cave. They passed adults, adolescents, children, babies, all

sprawled in their own filth. They came at last to a couple with limbs intertwined in a ghastly parody of physical love.

"Momma! Fadder!" shrilled the girl triumphantly. "Gimmel!"

The Baroness handed the watch to her. It was no longer the pretty toy that it had been when first offered. In this lighting it could have been fabricated from lustreless lead, from beads of dull glass.

The girl took it, stared at it, then flung it from her. "No p'etty!" she squawled. "No p'etty!"

She pulled a piece of the glowing fungus from the wall, stuffed it into her mouth. She whimpered as she chewed it then subsided on to the rock floor beside her parents.

"My watch," said the Baroness to Grimes. "Find it." After rather too long a time she added, "Please."

Grimes used his laser pistol cautiously, directing its beam upwards while looking in the direction from which the brief tinkle of the fall of the watch had come. He saw it shining there against the rock wall. He made his way to it, picked it up. It had dropped into a pool of some filth.

The Baroness said, "I am not touching it again until it has been sterilised. Put it in your pocket. And now, will you try to wake these people?"

Grimes pocketed the watch, returned the laser pistol to its holster. He squatted by the sleeping couple. He forced himself to touch the unclean skin of the man's bare shoulder. He gave a tentative tap, then another.

"I said *wake* him, not *pet* him!" said the Baroness. "Shake him!"

Grimes shook the sleeper, rather more viciously than he had intended. The man slid off the supine body of the woman, fell on to his side. He

twitched like a sleeping dog afflicted by a bad dream. Dull eyes opened, peered out through the long, matted hair. Bearded lips parted.

"Go 'way. Go 'way."

"We have come a long distance to see you . . ." said the Baroness.

"S'wot?" asked the man without any display of interest. "S'wot?" He levered himself to a half sitting position, broke off a piece of the omnipresent fungus from the near wall, brought it towards his mouth.

"Stop him!" ordered the Baroness.

Grimes caught the other's thin wrist in his right hand, forced it down. The man struggled feebly.

"I am the Baroness d'Estang," announced that lady.

So *what?* thought Grimes.

"S'wot?" demanded the man. Then, to Grimes, "Leggo. Leggo o' me you bassar!"

Grimes said, "We'll not get much from these people."

She asked, "Are you an expert? I find it hard to believe that you are expert in anything."

The man's free hand flashed up, the fingers clawing for Grimes' eyes. Grimes let go of the other's wrist, using both his own hands to protect his face. The cave denizen at once abandoned his attack and crammed the handful of fungus into his mouth, swallowing it without chewing. He immediately lapsed into unconsciousness.

"Now look what you've done!" snarled the Baroness.

"I didn't do anything," said Grimes.

"That was the trouble!" she said. She snarled again, wordlessly. Then, "All right. We will leave this . . . pigsty and return when we are better prepared. You will collect samples of the fungus so that it may be analysed aboard the ship and an ef-

fective antidote prepared. Be careful not to touch the stuff with your bare hands."

He prodded a protuberance of the nearest growth with the barrel of his Minetti. He hated so to misuse a cherished firearm but it was the only tool he had. He pulled his handkerchief from his pocket, extracting from its folds the Baroness's watch, putting it down carefully on the floor. He wrapped the cloth around the sample of fungus, making sure that there were at least three thicknesses of cloth between it and his skin. He removed his cap, placed the untidy parcel in it.

He followed his employer out to the open air.

**AFTER THEY** had returned to ground level Grimes ordered one of the robots to get specimens of the purple grubs from one of the bushes, also samples of the leaves upon which the revolting things were feeding. Then the party reboarded the pinnacle. Grimes took the craft straight up with the automatic cameras in action. The pictures would be of interest and value—the deserted village, the faint, rectangular outlines on the surrounding terrain showing where fields had once been cultivated, the cliff face with the dark mouths of the caves. No humans would be seen on these films; the children who had been feeding from the bushes had gone back inside.

The flight back to *The Far Traveller* was direct and fast. Grimes felt—and was—filthy, wanting nothing so much as a long, hot shower and a change into clean clothing. And the Baroness? Whatever he was feeling she must be feeling too, doubled and redoubled, in spades. The robots, who should have been doing the dirty

work, were as gleamingly immaculate as when they had left the yacht.

They landed by the ramp. The Baroness was first out of the pinnacle and up the gangway almost before Grimes had finished unbuckling his seat belt. By the time that he was aboard she was nowhere to be seen.

He saw her discarded clothing in a little heap on the deck of the airlock chamber. Big Sister said, "I suggest, Captain, that you disrobe before coming inside the ship . . ."

He growled, "I was house-broken at least thirty years before you were programmed."

He stripped, throwing his own soiled khaki on top of the Baroness's gear. He thought wily, *And that's the closest I'll ever get to the bitch . . .* Nonetheless he was not sorry to get his clothes off; they were distinctly odorous. He walked naked into the elevator cage, was carried up to his quarters. The robot stewardess, the literally golden girl, awaited him there. She already had the shower running in his bathroom, removed her skimpy uniform to stand under the hot water with him, to soap and to scrub him. To an outside observer not knowing that the perfectly formed female was only a machine the spectacle would have seemed very erotic. Grimes wondered who was washing the Baroness's back—her butler or her lady's maid? He hoped that whichever it was was using a stiff brush . . .

He asked his own servant, "Aren't you afraid you'll rust?"

She replied humourlessly, "Gold does not corrode." She turned the water off. "You are now sterile."

*I am as far as you're concerned,* he thought.

He stood for a few seconds in the blast of hot air and then, clean and

dry, stepped into his sleeping cabin. He looked with distaste at the gold and purple livery laid out on the bed. Reluctantly he climbed into it. As he did up the last button the voice of Big Sister said, "You will now join the Baroness in her salon, Captain Grimes."

Grimes filled and lit his pipe. He badly needed a smoke.

Big Sister said, "Her Excellency is waiting for you."

Grimes inhaled a satisfying lungful.

Big Sister repeated, "Her Excellency is waiting for you."

Grimes decided to allow himself three more inhalations.

Big Sister said yet again, "Her Excellency is waiting for you."

Grimes said, "What I tell you three times is true."

Big Sister said, "What I tell you is true."

Grimes put his pipe in an ashtray. The stewardess produced a little golden atomiser, sprayed him with a fragrant mist.

He said, "Now I reek like a whore's garret."

Big Sister said, "You do not, now, reek like an incinerator."

Grimes sighed and left his quarters.

THE BARONESS said coldly, "You took your time getting here, Captain. I suppose that you were obliged to indulge yourself by sucking on that vile comforter of yours. Be seated."

Grimes lowered himself cautiously into one of the frail-seeming chairs.

"I thought that we would view the film of the orgy again."

"The film of the orgy, Your Excellency? I didn't know that there was one."

The voice of Big Sister came from the Baroness's playmaster, an instrument that contrived to look as a TriVi

set would have looked had such devices been in existence during the reign of Louis XIV of France.

"Like the other records made on and about this planet it was obtained from the archives of the Survey Service on Lindisfarne. It is classified—for viewing by officers with the rank of Survey Service captain and above. You, Captain Grimes, resigned from the Survey Service with the rank of commander only."

"Let us not split hairs," said the Baroness generously. "Although he is only a civilian shipmaster Captain Grimes should be accorded his courtesy title. The film, please."

The screen of the playmaster came alive, glowing with light and colour. There was the village that they had visited—but a living settlement, not a crumbling ghost town. There were the people—reasonably clean, brightly clothed. There were the spacemen and spacewomen from the survey ship. And there was music—the insistent throb and rattle of little drums, the squealing of flutes. There was something odd about it, a tune and a rhythm that did not accord with these circumstances. Grimes suddenly recognised the Moody and Sankey lilt. He started to sing softly to the familiar yet subtly distorted melody.

*"Yes, we'll gather at the river,*

*The beautiful, the beautiful river . . ."*

"Must you, Captain?" asked the Baroness coldly.

He shut up.

It must have been quite a party, he thought. There were animal carcasses roasting over big open fires. Pigs? And what had happened to *them*? There were great earthenware pots of some liquor being passed around. There were huge platters heaped with amorphous hunks of . . . some-

thing, something which, even in the ruddy firelight, emanated a faint blue glow. And the music . . . Another familiar hymn tune . . . The words formed in Grimes' mind:

*Bread of Heaven, Bread of Heaven,  
Feed me till I want no more . . .*

The party was getting rough—not rough in the sense implying brawls but rough inasmuch as inhibitions were being shed along with clothing. It was fast developing into an orgy. Grimes was no prude—but he watched with nauseated disgust three children who could not have been older than eight or nine, two girls and a boy, fondling a fat, naked, supine crewman.

Then Commander Belton strode on to the scene. Grimes knew him slightly. After all these years he was still only a commander, was officer in charge of a third class Survey Service base on Pogg's Landing, a dreary, unimportant planet in the Shaula Sector. A sour, embittered man . . . Looking at the playmaster screen Grimes realised that Belton had changed very little over three decades.

Belton looked not only sour and embittered but righteously furious. Behind him were a couple of lieutenant commanders and a captain of marines, all trying to look virtuous. Behind them were twelve marines in full battle order.

Belton shuddered away from a plump, nude girl who, a jug of liquor in one hand, a platter of the fungus in the other, was trying to tempt him. He barked an order. His officers and the marines opened fire with stunguns. Those revellers who were still on their feet fell, twitching. Grimes saw a hapless woman topple into one of the fires. He watched the marines dragging their unconscious shipmates towards the waiting pinnaces, caring

little what injuries were inflicted in the process. Finally there was a scuffle around the camera itself. It was knocked over and kicked around—but still recorded a series of shots of heavily booted feet trampling on sprawling naked bodies.

And that was it.

"Well?" asked the Baroness, arching her fine eyebrows.

"These things happen," said Grimes. "After all, Your Excellency, a spaceship isn't a Sunday School."

"But the colony should have been," she told him. "Surely you must be aware that the founders of the Starhaven colony were all members of a religious sect, the True Followers. And the True Followers were notorious for their puritanism."

"There were spacemen too, Your Excellency—and spacemen are usually agnostics."

"Not always. It is a matter of record that the Master of the *Lode Venturer* was a True Follower. So were most of his officers."

"Beliefs change, or are lost, over the generations," said Grimes.

Then Big Sister's voice came from the playmaster. "Analysis of the samples has been completed, Your Excellency. Insofar as the larval stage of the indigenous arthropod is concerned there is protein, of course. Amino acids. Salts. A high concentration of sugars. It is my opinion that the children of this world regard those larvae as their counterparts on more privileged planets regard candy.

"And now, the fungus. It supplies all the nutritional needs of the people of Starhaven. By itself it constitutes a perfect balanced diet. Analysis of the human excreta adhering to the boots of yourself and Captain Grimes indicates that its donors were in a good state of physical health . . ."



"Physical health . . ." interjected the Baroness.

"Yes, Your Excellency. Analysis of the fungus indicates that it is, but for one thing, a perfect food . . ."

Formulae appeared on the screen.

$C_2H_5OH \dots (C_2H_5)_2O \dots$

"Alcohol," said Grimes. "Some people might think that its presence would make the food really perfect."

"The ways of organic intelligences are, at times, strange to me," admitted Big Sister. "But, to continue. There are other, very complex molecules present but, so far as I can determine, they are non-toxic . . ."

"And there was no evidence of disease in the feces?" asked the Baroness. "No indication of breakdown of liver, kidneys or other organs?"

"No, Your Excellency."

"Blotting paper," said Grimes.

"Blotting paper?" asked the Baroness.

"A spaceman's expression, Your Excellency. It means that if you take plenty of solid food—preferably rich and fatty—with your liquor there's no damage done. That fungus must be its own blotting paper . . ."

"It could be so," she admitted. "There are some people who would regard this world as a paradise—eternal alcoholic euphoria without unpleasant consequences."

"There were babies in that cave," said Grimes, changing the subject.

"What of it, Captain?"

"To have babies you must have childbirth."

"A blinding glimpse of the obvious. But I see what you are driving at and I think I have the answer. Before the colonists retreated from their village to the caves there must have been doctors, midwives. And those doctors and midwives are still functioning."

"In those conditions?" he de-

manded, horrified.

"In those conditions," she replied.

"Do not forget, Captain, that the human race contrived not only to survive but to multiply long before there were such things as spotlessly clean maternity wards in hospitals literally bulging with superscientific gadgetry, long before every passing year saw its fresh crop of wonder drugs. And perhaps those doctors and midwives will pass on their skills to the coming generations—in which case the colony stands a very good chance of survival. Perhaps they will not—but even then the colony could survive.

"Nonetheless," she went on, "I must discover the reason for this quite fantastic devolution. There must be records of some kind in the village."

"There are no records," said Big Sister. "I sent the general purpose robots back to make a thorough search of the settlement, Your Excellency. It seems certain that the archives were housed in one of the buildings destroyed by fire. There are no records."

"There could be records," said the Baroness slowly, "in the memories of those living in the caves. I must try to devise some sort of bribe, reward . . . Some sort of payment . . . What would induce these people to talk freely?"

That pretty watch hadn't been much good, thought Grimes.

"My watch," said the Baroness suddenly. "Have you cleaned it for me, Big Sister? Did it need repair?"

"Your watch, Your Excellency?"

"Yes. My watch. It was a gift from the Duke of . . . No matter. The captain brought it back in his pocket. It had been dropped into a pool of . . . ordure."

"There was no watch in any of Cap-

tain Grimes' pockets, Your Excellency."

Grimes remembered then. The thing had been wrapped in his handkerchief. Then he had removed it, to use the handkerchief to parcel up the specimen of fungus. He must have left it in the cave . . .

He said as much. He added, "When we go back tomorrow morning I'll find it."

The Baroness had been almost friendly. Now she regarded him with contemptuous hostility. She snapped, "You will go back to the cave and find it now."

**G**RIMES went up to his quarters to change into his khakis; he did not think that even the Baroness would wish him to scabble around in that noisome cavern wearing his purple and gold finery. When he left the ship it was almost sunset. The pinnacle was awaiting him at the foot of the ramp. There were no general purpose robots to escort him. He had assumed that Big Sister would lay them on as a matter of course. She had not but he could not be bothered to make an issue of it.

He boarded the pinnacle. It began to lift even before he was in the pilot's chair. Big Sister knew the way, he thought. He was content to be a passenger. He filled and lit his pipe. The more or less (rather less than more) fumes had a soothing effect. His seething needed soothing, he thought. He might be only an employee but still he was a shipmaster, a captain. To be ordered around aboard his own vessel was much too much. And all over a mere toy, no matter how expensive; a gaudy trinket that the Baroness had been willing enough to hand to that revolting female brat.

The pinnacle knew the way. This

was the third time that it was making the trip from the yacht to the valley. It had no real brain of its own but, when it was not functioning as an extension of Big Sister, possessed a memory and was at least as intelligent as the average insect.

It flew directly to the village while Grimes sat and fumed, literally and figuratively. When it landed darkness was already thick in the shadow of the high cliffs.

"Illuminate the path," ordered Grimes.

As he snapped his seat belt he saw through the viewports the cliff face suddenly aglow in the beams of the pinnacle's searchlights, the brightest of all of which outlined one of the dark cave openings. So that was where he had to go. He passed through the little airlock, jumped down to the damp grass. He walked to the cliff face, came to the natural ramp. He hesitated briefly. It had been a dangerous climb—for a non-mountaineer—even in daylight, in company. But, he was obliged to admit, he could not complain about lack of illumination.

He made his slow and careful way upwards, hugging the rock face. He had one or two nasty moments as he negotiated the really awkward parts. Nonetheless he made steady progress although he was sweating profusely when he reached the cave mouth. This time he had brought an electric torch with him. He switched it on as he entered the natural tunnel.

Did these people, he wondered disgustedly, spend all their time sleeping? It seemed like it. Sleeping, and eating, and copulating. But the paradises of some of the Terran religions had not been so much different—although not, surely, the paradise of a sect such as the True

Followers . . . .

The bright beam of the torch played over the nude bodies sprawled in their obscene postures, over the clumps of fungus that looked almost like growths of coral—or naked brains. These glowed more brightly after the beam of his torch had played over them.

Carefully picking his way through the sleepers he made his way deeper into the cave. He was watching for the glint of gems, of bright metal. He did not see the slim arm that stretched out from an apparently slumbering body, the long-fingered hand that closed about his ankle. He fell, heavily. His torch was jolted from his grasp, flared briefly as it crashed on to the rock floor, went out. His face smashed into something soft and pulpy. His mouth was open to cry out and large portion of the semi-fluid mess was forced into it. He gagged—then realised that the involuntary mouthful was not what, at first, he had thought it was.

The fungus, he realised.

It tasted good.

It tasted more than merely good.

There was a meatiness, a sweetness, a spiciness and, he thought, considerable alcoholic content. It would do no harm, he considered, if he savoured the pleasant taste a few seconds more before spitting it out. After all, he rationalised, this was scientific research, wasn't it? And Big Sister had given the fungus full marks as a source of nourishment. He chewed experimentally. In spite of its mushiness the flesh possessed texture, fibres and nodules that broke between his teeth, that released aromatic oils which were to the original taste as a vintage Burgundy is to a very ordinary *vin ordinaire*.

Before he realised what he was

doing he swallowed.

The second mouthful of the fungus was more voluntary than otherwise.

He was conscious of a weight on his back, of long hair falling around his head. Languidly he tried to turn over, finally succeeded in spite of the multiplicity of (it seemed) naked arms and legs that were imprisoning him.

He looked up into the face that was looking down into his.

Why, he thought, *she's beautiful* . . .

He recognised her.

She was the woman whom he and the Baroness had seen emerge briefly from the caves. Then her overall filthiness had made the biggest impression. Now he was unaware of the dirt on her body, the tangles in her hair. She was no more (and no less) than a desirable woman, an available woman. He knew that she was looking on him as a desirable, available man. After all the weeks cooped up aboard *The Far Traveller* with an attractive female at whom he could look, but must not touch, the temptation was strong, too strong.

She kissed him on the mouth.

Her breath was sweet and spicy, intoxicating.

She was woman and he was man, and once he was out of his confining clothing they were one.

The tension-releasing explosion came.

She slumped against him, over him, her nipples brushing his face. Slowly, slowly, she rolled off him. He realised dimly that her hand was against his mouth. It held a large piece of the fungus. He took it from her, chewed and swallowed. It was even better than his first taste of it had been.

He drifted into sleep.

**H**E DREAMED.

He was a child.

He was one of the *Lode Venturer's* survivors who had made the long trek south from the vicinity of the north magnetic pole. He could remember the straggling column of men, women and children loaded with supplies from the wrecked ship—food, sacks of precious Terran seed grain, sealed stasis containers of the fertilised ova of livestock, the incubator broken down into portable components, the parts of the solar power generator.

He was one of *Lode Venturer's* people who had survived the trek as well as the crash landing, who had found the valley, who had helped to till the fields and plant the grain, who had worked at setting up the incubating equipment. Although only a child he had shared the fears of his elders as the precious store of provisions dwindled, the knowledge that, in spite of strict rationing, it would not last until the harvest, until the incubators produced the progenitors of future herds of meat animals.

He remembered the day of the drawing of lots.

There were the losers—three young men, a middle-aged woman and another one who was little more than a girl—standing there, frightened yet somehow proud, while further lots were drawn to decide who would be executioner and butcher. A fierce argument had developed—some of the women claiming, belatedly, that females of childbearing age should have been exempt from the first lottery. While this was going on another boy—the son of the middle-aged woman—came down from the caves to which he had run rather than stay to watch his mother slaughtered. He was bearing an armful of the fungus.

"Food!" he was shouting. "Food! I have tasted it and it is good!"

They had all sung a hymn of thanksgiving then, grateful for their delivery from what, no matter how necessary, would have been a ghastly sin.

*Bread of Heaven, Bread of Heaven,  
Feed me till I want no more, want  
no more,*

*Feed me till I want no more . . .*

He awoke then, drifting slowly up from the warm, deep sleep. He did what he had to do, relieving the pressure on bowels and bladder as he lay there. He wondered dimly why people ever went to the trouble of fabricating elaborate sanitary arrangements. The fungus needed his body wastes. He needed the fungus. It was all so simple.

He reached out and grabbed another handful of the intoxicating stuff. The woman—or another woman—was with him. While he was still eating they coupled.

He slept.

HE DREAMED.

He was the Pastor, the leader of the settlement.

He had looked over the arrangements for the feast and all was well. There was an ample supply of the strong liquor brewed and distilled from grain—the last harvest had been a good one, surplus to food requirements. Pigs had been slaughtered and dressed, ready for the roasting. Great baskets of fungus had been brought down from the caves. Since it had been discovered that it thrived on human manure it had proliferated, spreading from the original cavern through the entire subterranean complex. Perhaps it had changed, too. It seemed that with every passing year its flavour had improved. At first—he

seemed to remember—it had been almost tasteless, although filling and nutritious.

But now . . .

The guests from the ship, clattering through the night sky in their noisy flying boats, were dropping down to the village. He hoped that there would not be the same trouble as there had been with the guests from that other ship, the one with the odd name, *Epsilon Pavoris*. Of course, it had not been the guests themselves who had made the trouble; it had been their captain. But *this* captain, he had been told, was a True Follower. All should be well.

All was well.

The love feast, the music, the dancing, the singing of the old, familiar hymns . . .

And the love . . .

And surely the manna, the gift from the allwise, all-loving God of the True Followers, was better than ever it had been. What need was there, after all, for the corn liquor, the roast pig?

*Bread of Heaven, Bread of Heaven*

*Feed me till I want no more . . .*

He walked slowly through and among the revellers, watching benevolently the fleshly intermingling of his own people and those from the starship. It was . . . *good*. Everything was good. He exchanged a few words with the Survey Service petty officer who, dutifully operating his equipment, was making a visual and sound recording of the feats. He wondered briefly why the man was amused when he said that the pictures and the music would be acclaimed when presented in the tabernacles of the True Followers on Earth and other planets. He looked at the group at which the camera was aimed—a fat, naked, supine crewman being fondled by three children. It was a charming

scene.

*And why the strong sensation of déjà vu?*

*Why the brief, gut-wrenching disgust?*

He heard the distant hammering in the still, warm air, growing louder and louder. More boats—what did they call them? pinnaces?—from the ship, he thought. Perhaps the captain himself, Commander Belton, was coming. He would be pleased to see how well his fellow True Followers on this distant world had kept the faith . . .

Then the dream became a nightmare.

There were screams and shouts.

There was fighting.

There were armed men discharging their weapons indiscriminately, firing on both their own shipmates and the colonists.

There was his confrontation with a tall, gaunt, stiffly uniformed man.

(Again the flesh of déjà vu.)

There were the bitter, angry words.

"True Followers, you call yourselves? I understood that my men had been invited to a religious service. And I find a disgusting orgy in progress . . ."

"But we are True Followers. We were saved. God Himself sent his manna to save us from committing the deadliest sin of all. Here! Taste! Eat and believe!"

And a hand smashed viciously down, striking the proffered manna from his grasp, as Belton shouted, "Keep that filthy muck away from me!"

He saw the muzzle of a pistol pointing at him, saw the flare of energy that jolted him into oblivion.

HE SLOWLY DRIFTED up into semi-consciousness. There was a woman.

There was more of the manna.

Again he slept.

## HE DREAMED.

He dreamed that a bright, harsh light was beating through his closed eyelids, that something hard was nudging him in the ribs.

He opened his eyes, immediately shut them again before he was blinded.

A voice, a somehow familiar female voice, was saying, "Captain Grimes, Captain Grimes! Wake up, damn you!" And then, in a whisper, "Oh, if you could only see yourself!"

He muttered, "Go 'way. Go 'way."

"Captain Grimes! John!" There was a hand on his shoulder, shaking him. He opened his eyes again. She had put her torch on the ground so that he now saw her by its reflected light. She was a woman. She was beautiful—but so was everybody in this enchanted cavern.

She said, "I must get you out of here."

Why? he wondered. Why?

She got her hands under his naked shoulders, tried to lift him. He got his hands about her shoulders, pulled her down. She struggled, kneeling him in the groin. He let go and she stood up, stepping away from him. He was dimly aware that the shirt was torn from her upper body. In spite of the pain that she had inflicted upon him he felt a surge of desire, reached out for her exposed breasts. She stepped back another pace.

He wanted her, but to get up to go after her was too much trouble.

But he muttered, "Do'n' go . . . Do'n' go . . . I . . . want you . . . Always . . . wanted . . . you . . ."

Her face was glistening oddly. Dimly he realised that she was weeping.

She said, "Not here. Not now. Pull yourself together. Come back to the ship . . ."

He said—the words were coming more easily now—"I . . . hate ships . . . All . . . True Followers hate . . . ships . . . Stay . . . here . . . Be . . . happy . . ."

Her face and voice hardened. "I'll get you out of here by force!"

He was losing interest in the conversation. He reached out languidly for the omnipresent manna, chewed and swallowed.

He muttered, "You . . . should . . . try . . . this . . . Make . . . you . . . human . . ."

But she was gone.

It did not matter.

The warmth of the communal life of the cavern surrounded him.

There were women.

And always there was the manna.

He slept.

## HE DREAMED.

He was one of the crowd being addressed by the Pastor.

"We must sever all ties with Earth!" he heard. "We are the true, the real True Followers. Were we not saved by God Himself from death and from deadly sin? But these Earthmen, who have intruded into our paradise, who have strayed from the true path, refuse to believe . . ."

"So burn the houses, my people! Destroy everything that links us with faithless Earth, even our herds and our crops!"

"God's own manna is all that we need, all that we shall ever need!"

And somebody else—Grimes knew that it was one of the community's physicians—was crying over and over, in a sort of ecstasy, "Holy symbiosis! Holy symbiosis!"

Crackling flames and screaming



pigs and the voices of the people singing . . .

*Bread of Heaven, Bread of Heaven,  
Feed me till I want no more . . .*

AGAIN THE too bright light and again the hand shaking his shoulder . . .

"Wake up, John! Wake up!"

"Go 'way . . ."

"John! Look at me!"

He opened his eyes.

She had placed her torch on a ledge so that it shone full upon her. She was naked. She said softly, "You want me. You shall have me—but not here, among these degenerates, this filth." She turned slowly, saying, "Follow . . ."

Almost incuriously he watched her luminous body swaying away from him. Before she reached the mouth of the cave he had fallen back into sleep.

A long while or a little while—he had no way of knowing—later he awoke. After a few mouthfuls of manna he crawled around until he found a woman.

And slept again.

And dreamed.

SUBTLY the dreams changed.

There were, as before, memories from the minds of the colonists who had long lived in symbiosis with the fungus but there were now other memories—brief, flashes, indistinct at first but all the time increasing in clarity and duration. There were glimpses of the faces and bodies of women whom he had known—Jane Pentecost, Maggie Lazenby, Ellen Russell, Una Freeman, Maya . . .

The women . . .

And the ships.

Lines from a long-ago read and long-ago forgotten piece of verse drifted through his mind:

*The arching sky is calling*

*Spacemen back to their trade . . .*

He was sitting in the control room of his first command, the little courier *Adder*, a king at last even though his realm (to others) was an insignificant one. Obedient to the touch of his fingers on the console the tiny ship lifted from the Lindisfarne Base apron.

*. . . All hands! Stand by! Free Falling!*

*The lights below us fade . . .*

And through the dream, louder and louder, surged the arrhythmic hammering of a spaceship's inertial drive.

HE AWOKE.

He scooped a handful of manna from a nearby clump.

He chewed, swallowed.

Somehow it was not the same as it had been; there was a hint of bitterness, a rancidity. He relieved himself where he lay; crawled over and among the recumbent bodies until he found a receptive women.

*Like a great fat slug*, he thought briefly.

(But what was a slug? Surely nothing like this beautiful creature . . .)

After he was finished with her—and she with him—he drifted again into sleep, even though that mechanical clangour coming from somewhere outside the cave was a continual irritation.

HE DREAMED more vividly than before.

He had just brought *Discovery* down to a landing in the Paddington Oval on Botany Bay. His officers and the marine guard behind him he was marching down the ramp to the vividly green grass. Against the pale blue sky he could see the tall flagstaffs, each with its streaming ensign, dark blue with the cruciform constellation

of silver stars in the fly, with the superimposed red, white and blue crosses in the upper canton.

There was a band playing.

He was singing in time to the familiar tune.

*Waltzing Matilda, Waltzing Matilda,*

*You'll come a-waltzing Matilda with me . . .*

He awoke.

THERE WAS STILL that arhythmic hammering, drifting in from somewhere outside—but the music, vastly amplified, almost drowned the mechanical racket.

*Up jumped the swagman, sprang into the billabong,*

*"You'll never catch me alive!" cried he . . .*

And what was this noisome billabong into which he, Grimes, had plunged? Would his ghost still be heard after he was gone from it? Would his memories of Deep Space and the ships plying the star lanes remain to haunt the swinish dreamers? Would that honest old national song replace the phoney piety of the True Followers' hymns?

*Manna!* he thought disgustedly, kicking out at a dim-glowing mass. It splattered under his bare foot and the stench was sickening. He was seized with an uncontrollable spasm of nausea. Drained and shaken he stumbled towards the cave entrance, the music luring him as though he were one of the Pied Piper's rats. He tripped over sleeping bodies. A woman caught hold of his ankle. He looked down at her. He could not be sure but he thought that she was the one who had been responsible for his original downfall. Almost he brought his free foot smashing down on to her sleepily smiling face but, at the last

moment, desisted.

She was what she was, just as he was what he was—and he had wallowed in the mire happily enough . . .

He stooped and with both hands almost gently disengaged her fingers.

He staggered on, finally out on to the ledge. The sunlight at first blinded him. And then he saw her hanging there above the valley, beautiful and brightly golden, *The Far Traveller*. It was from her that the music was blaring. It ceased suddenly, was replaced by the amplified voice of Big Sister.

"I am sending the pinnacle for you, Captain Grimes. It will come as closely alongside the cliff as possible. The robots will help you aboard."

He waited there, naked and filthy and ashamed, until the boat came for him.

**G**RIMES—clean, clothed, depilated but still shaky—sat in the Baroness's salon telling his story. She listened in silence, as did the omnipresent Big Sister.

When he was finished Big Sister said, "I must make a further analysis of the fungus specimens. Drug addiction among humans and other intelligent life forms is not unusual, of course, but the symbiotic aspects of this case intrigue me."

"The dreams," whispered Grimes. "The dreams . . . I must have experienced the entire history of the Lost Colony . . ."

"For years," said Big Sister, "the fungus has been nourished by the waste products of the colonists' bodies—and when they have died it has been nourished by the bodies themselves. It has, in some way that I have yet to discover, become the colonists. Is there not an old saying: A

man is what he eats? This could be true for other life forms. And the symbiosis has been more, much more, than merely physical—and by eating the fungus you, for a while, entered into that symbiotic relationship."

"Very interesting," commented Grimes. "Very interesting. But you must have known *what* was happening, if not why. You should have sent the robots to drag me out by force."

"Command decisions are not my prerogative," said Big Sister smugly.

"Her Excellency did, however, wish to effect a forcible rescue but I dissuaded her. It was a matter for humans only, for humans to resolve for themselves—and essentially for a human of your sort to resolve for himself. I know very well, Captain Grimes, how you hate robots. Had you been rescued by automata it would have rankled for the rest of your life." There was a brief, almost human chuckle. "I must admit, however, that after Her Excellency had failed to recapture you by the use of a *very* human bait I did make some use of my knowledge of your peculiar psychology—your professional pride, your rather childish nationalism . . ."

Grimes ignored this last. He turned to the Baroness.

"So it was not a dream," he murmured, "when you . . ."

She looked at him coldly.

"It was not a dream," she said. "And I shall not forget how I offered myself to you and how that offer was . . . ignored. There was a time when I thought that something—not permanent but mutually satisfying—might develop between us. But no more. Our relations will remain as they have been since I first engaged you, those between employer and employee."

Grimes remembered with increasing vividness how she had exposed herself to him, had tried to tempt him.

He said, "I am sorry. But I was under the influence of the . . . manna . . ."

She said, "*In vino veritas*, Captain Grimes. And what makes it worse is the knowledge that the cacaphony of a ship's engines, the trite music of a folksong about an Australian sheep-stealer, succeeded where I failed."

He began, "But . . ."

She said, "You may leave."

If only that Lotus Land were more hygienic, he thought, he might well return there.

But he knew that he never would.

—A. BERTRAM CHANDLER

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*In "Search" (December, 1976) we met Jay Pearsall and Raelle as they sought their identities among the infinity of nearly-alike universes opened up to them by the Skip Drive. Now we follow them to a planet all too appropriately named—*

# **NOBODY HOME**

**F. M. BUSBY**

**Illustrated by STEVE FABIAN**

**U**P AND OUT from Earth, hour after hour, Raelle lifted the Courier Can. Her second Earth—and how many would there be? Beside her, Jay grinned as the Can Search reached one tenth of  $c$ ; he activated the Skip unit. "Now," he said, "let's see how close we can come to a least-fuel run."

Glancing at her husband's thin face, ears protruding below the reddish stubble of his scalp, she smiled. "If you want to. Though I doubt there's much to be gained over simply running at Redline." Jay shrugged and adjusted their Skip Factor, bringing time dilation down to less than one percent.

Normal drive—the thrustors that moved them—still paid tribute to Einstein, to Lorenz and Fitzgerald. The Skip unit did also, in a way—but instead of  $c$  its theoretical limit was the product of  $c$  and Skip Factor. And no ship, whether full-sized vessel or two-person Courier Can, ever pushed Limit—Redline was ten percent time dilation. The adjustment—the balance between Skip, dilation and absolute velocity—determined fuel economy. Well, if Jay wanted to hone his skills and in the honing save a miniscule amount—why not?

She eased normal drive up to recommended max and locked the control. "That should do for a time. Getting hungry?"

He shook his head. "Not yet. When I'm done with this part." She patted his shoulder and left her control seat to open a ration packet. When she had eaten she opened out her half of the sleeping couch and lay down.

She dozed; his touch woke her. Against the light she squinted at him. "I went to sleep. How long?"

"An hour, maybe. Took me that long to get Skip up to ten-third and plot the least-fuel curve into the computer. Now I don't have to bother for a while."

"You eat yet?" He nodded. "You want to talk about anything?" Another nod. "Can it wait a little?"

Now he grinned. "Sure. I expect we want the whole couch out, though."

WHAT JAY WANTED to discuss was Drift. Not the mechanics of it—the way high Skip suppresses most of your normal appearances in the quantized Universe and lets you cross into parallel timelines. They knew all that. No—what he needed to speak of were the consequences, past and future.



And Raelle thought, *I knew he wasn't done with it.* . . . Leaving their own Earth in search of his dead parents—as she had left to seek her own alternate self—finding, instead, parental counterparts who had never known him. He had taken the jolt well, she thought—but now, as with seismic quakes, was he having aftershocks?

He spoke slowly, cautiously. Watching the frown come and go between his brows, she listened more than she replied. They lay together, now touching only with hand and foot caresses, sharing a glass of wine: Jay sipped from it and said, “So it didn’t get to me until we’d lifted. But now I wonder—should we have stayed? Would you have been willing?” She smiled and touched his face. “You would have, then—I wasn’t sure. Well, what bothers me—it’s the odds. Our own Earth, then the one we’ve just left. *Next* time, what do we expect?” He shook his head. “That’s why I stayed on the controls—to think. I don’t care about that little bit of fuel. I needed to stay busy, was all.”

“Jay—we have to make this run. We promised.”

“I know. But was that promise a mistake?” She had the glass now; she took a swallow and handed it back. He shrugged. “We’ll find out, I guess, when we get back from Nobody Home. And then—”

“Then we’ll see what we find—and decide from there.”

“Right. I won’t bother you with this again, honey. From now on we concentrate on getting the missing equipment components, whatever they are, to the colonists.”

“Yes. Only a week, a little over, to get there. And two more aground, at least.” Yes—for memory conservation, after high Skip. “And then—back to

Earth. It’s not so long, Jay.”

“It wouldn’t be, if we knew what kind of Earth to expect.” And she knew he was thinking of Harper’s Touchdown, of the ship’s captain tortured by learning that he’d lost his own Earth—and by knowing that months must pass before he’d discover the extent of that loss.

“Jay? Remember what Admiral Forgues said? About reaching two Earths in a row, less favorable than the ones you’d left?”

“Give up and settle for what you have—yes.” He gulped the last drops of wine, then turned and stood. “Oh, I’ll do it all right, if it comes to that. Now—I’m just dithering. Hindsight needling me, I guess. Don’t worry, Raelle—I’ll be all right.”

“Of course you will.”

FROM THE “settled” reaches of the Galactic arm they emerged into clear space; between them and their reentry point lay a long, vast spiral. As *Search* edged up toward Skip ten-sixth and toward the Redlined forty-two percent of Limit, Jay showed no more signs of preoccupation outside their own relationship and mission. Alone at the controls he looked over his shoulder and called off the numbers. “We’re crowding four hundred thousand lights, Raelle! You know what comes next. Want to get in place for it?”

Already the ionization, the roving potential fields, could be felt. Quickly Raelle sat at the other control position, prepared to minimize shocks and sparking by making every touch to the console—engaging or disengaging—quick and firm.

Skip passed ten-sixth—in the crackling blue haze she felt her hair stand straight out. Reflection from an unlit screen showed her that it had grown



to about six centimeters since the initial cropping, when high-Skip ionization had surprised them so thoroughly. Now she shrugged. Unless she leaned far forward or to one side there was nothing the hair could spark against—for the time, then, she could ignore it.

Jay set Skip Factor constant; at his nod she adjusted drive power to maintain steady velocity. She checked course; he confirmed it. Then, until their "day" shift ended and they could reduce Skip below ten-sixth, the two were somewhat restricted by the ionization.

For the most part they remained in the control seats and exchanged occasional remarks. The distractions of high ionization, thought Raelle, didn't encourage light conversation or deep thought. She was glad when the shift was done—not even food attracted her when it sparked blue. And she was hungry.

**O**N THE EIGHTH "day", probing back into the Galactic arm with Skip reduced to maneuverable level, they saw a yellow dot grow to be a tiny disc. "On the nose, I think," said Jay.

"Close enough, anyway." *So few days, but so tiring.* "My turn for a landing?"

He spread his hands away from the controls and nodded. "I'll tune for the beacon. All right?"

"I'd hope so. Wouldn't care to chase the planet down by visual." His brows raised—she remembered that Nobody Home's outsized moon made it unique in the planetary system. She shrugged and concentrated on balancing Skip against thruster deceleration for least fuel expenditure. When she had it as closely as possible—and the muted hum of the "hell box", behind, confirmed the meters' story—she

checked her screen. The beacon blip did not appear.

She turned to Jay. He shrugged. "Something's out of whack—either the beacon or our receptors. While I'm checking, use the computer coordinates." On screen the pulsed indications began. All right—for now, she'd follow them. She made a minor correction.

Minutes built an hour before Jay said, "Our circuits test normal—there's simply no signal."

Preoccupied with her decel pattern Raelle said, "Next step then—right?"

"Sure—I'm on it now." One side of his screen showed a terrain map; the other swung outside view back and forth near the approaching sun. The searching beam fixed on two dots of light and zoomed them to higher magnification. "There's the planet—the big satellite pegs it solidly. Revised data coming up."

She needed to make less change than she expected. Satisfied, she said, "Nice spotting. The map, now—what altitude do we see it from?" Refreshing her memory she looked at it—to its right, a river fed a wide bay. At left two smaller rivers joined to make the large one. Between junction and river mouth the bed cut deeply through a range of hills. The location, she knew, was close to equatorial.

"The tape's not calibrated," he said. "But the main settlement, where the rivers join, is about twenty kilos from the sea."

She nodded. "Shouldn't be hard to find. The terrain's distinctive—and signal or no signal, the beacon tower will shine out."

"If they're having power failure—on nightside we might not spot it."

Raelle laughed. "That's where your fuel saving will help. We don't have to be in a hurry to set down." As

*Search* continued to approach the planet, they said no more.

ON DAYSIDE NOTHING resembled the map; on night side no lights showed. Coasting in orbit they waited for the planet to turn their goal sunward—and finally it did so.

"There!" said Jay. "See it?" At Raelle's nod he sat back, waiting while she put them into a one-orbit descent pattern. When her attention was free, he said, "I couldn't make out any construction. I guess we were too high for that."

"Maybe." She glanced at the screened map. The scale was not so different from what they had seen below—and the picture clearly showed dots of buildings, and the blankness of a landing area.

THE BAY WAS THERE, and the hills and rivers—nothing more. Jay shook his head. "What could have happened? Did they move somewhere else?"

"To find out, we'll have to land. Can't waste fuel just hunting around, without clues." She brought *Search* down to a flattish clearing surrounded by low, brushcovered knolls. Once grounded, they checked through shutdown procedures without comment.

Then they looked at each other. "I'm tired," said Jay. "And you must be, too—you've been doing most of the work. But I don't think I could sleep until we check this out."

"Right." But first they ate—Jay had put rations heating when their final descent began. They dressed for the cool, brisk morning the outside sensors indicated. Knowing the air to be safe and drinkable water within walking distance, they descended from *Search* carrying only instruments and

recording equipment.

Outside, breathing clear air that bore faint scents of vegetation, Raelle looked around her. She consulted a sketch map, then pointed to her left. "The beacon tower should have been over that way. Let's go see what's left of it." She began walking; Jay stayed beside her.

After a few minutes he said, "We have to look, I suppose—but we won't find anything." Raelle's gaze met his. "The landing area, you see—we're walking on it, where it should be. But this place, this slightly rolling ground—it's never been leveled. The brush shows that—it's certainly not new growth."

Raelle stopped. "I know. But as you say, we have to look."

AS THEY EXPECTED, they found nothing—no sign that humans had ever visited this place. They quartered the area around the site mapped for the tower. They walked to a low hill that overlooked the river junction, and saw no signs of docks or abandoned boats. As they turned back toward *Search*, one of them—Raelle was not sure which—stumbled against the other. Then they were holding together, embracing, kissing fiercely.

"It's too cold out here!"

"I don't care."

"I know—neither do I."

"—in the way. There—that's better."

BACK INSIDE *Search*, relief of passion sustaining them while hot drink eased their chill, they sat, quiet. Finally Jay said, "You know what it is, don't you?"

She nodded. "Drift—what else? The Admiral told us—on colonizing Nobody Home, the decision was

close. We've Drifted to a line in which—what was the name of the other place?"

After a pause, frowning, Jay nodded. "I remember now—Sluicebox. Yes—here, Sluicebox got the go-ahead and Nobody Home got the ten year wait."

"Or maybe more, Forgues said. And do you recall *when* that ten years would have started?"

"Let's see—on both our own Earth and the one we just left, Nobody Home's about a year old as a colony. So—"

Nine years, at best, the answer was—nine years to be marooned on this planet, alone. Unless another survey ship came—and was that likely? Neither knew enough to guess. And—the *reason* they were trapped—neither had the knowledge to start with native ores and *Search's* meager complement of tools, and build a fuel synthesizer.

Having accepted that fact, they went to sleep.

**C**OLONIZATION On Short Notice—or, Light Planetkeeping Made Easy. Raelle smiled at her written heading, then sobered—fun was fun, but she wanted to set down the best possible outline, before showing it to Jay for criticism. Feedback between them—that was what they needed. . . .

By now, Jay would be well into the hills—expecting to reach the bay, the sea, by midafternoon. They needed to know whether any ship had ever reached this version of Nobody Home—and not for the first time the irony of the name made her shake her head. But if a ship had come here—if it had—in the Earths they knew, the river's mouth had been the first landing site. And ships leave debris—castoffs, things no longer needed.

Perhaps, Jay had said, he might find something useful.

"Too heavy to carry, probably—anything that's much good to us. But we've got *some* spare fuel—we could manage a hop over to the bay and back. It's worth the hike, though, to find out if we want to burn fuel that way or save it all to keep the Can's systems operational longer." So he had laden himself with food, sleeping gear and instruments, and left not long after sunup—planning to stay overnight and return the next day.

Now Raelle continued with her outline. First—things they knew and probably could take for granted, but still should examine. Air—ideal. Water—safe and abundant, with little seasonal variation, so near the equator, to disturb the supply. Temperatures within comfortable range, considering their available clothing—but when the garments at hand wore out? The fabrics were durable, but she made a note anyway. Reports stated that some of the local animals were furred—the matter could become important.

Food—the Can's stores would not last long. But this planet's basic proteins, animal and vegetable, matched human requirements almost perfectly—and somewhere in their cargo, Raelle remembered, was a hefty carton of mineral trace supplements. Food, then—animals of land and water, roots, leaves, fruits, flowers, seeds, berries, tubers, fungi (Must Be Boiled Thoroughly, she wrote), the riverbank moss—this planet's pickings could sustain them indefinitely. But without hunting weapons of any sort, she and Jay had best look to the skills of trap and snare. . . .

Shelter. *Search* was the easy answer—while its fuel lasted and for

another forty days or so, on batteries. Then, because of its total dependence on sophisticated energies, the Can would become an awkward, cheerless cave of metal and plastic. Native Hut, Native Heat, she wrote. *We must conserve what we have here—later, if no one comes, we could need it badly.* Standby maintenance functions used very little fuel—on the amount needed for a jaunt to the bay and back, *Search* could “live” for nearly a year.

Medicine. The standard kit aboard was quite comprehensive. Unfortunately it was designed for situations enduring no more than ten or fifteen days. Don't Get Sick!!!

Toothaches didn't count—if absolutely necessary, *anyone* could pull a tooth. Not that she liked the idea very much.

What else? Contraceptives—certainly they did not want to have children who, if no aid came, might someday be left alone on an abandoned world. Well. Her one-year implants were tailored specifically to her individual glandular balance, so it was cheaper and more convenient to obtain several in one order. She checked—four left, plus eight months remaining on the current one. After that? She shook her head. She was no surgeon, nor was Jay—there could be no question of sterilizing either of them.

She considered the alternatives—abstinence, complete dependence on noncoital methods, and the risk of conception—all of them repelled her. Suddenly she remembered reading of how the second Centauri expedition, years overdue because of breakdowns, had halted its population increase. She shuddered—as though Jay were present she said aloud, “You'll have to choose—it's your body.” And thought

that while the small cut caused no loss of function, the permanent result was so damnably undignified!

SHE ROSE and made coffee, sat to drink it, rereading her list of necessities. If there were others she could not think of them now. Leaving the remainder of the sheet blank, she began another.

Beware Of. The briefing sheet listed known dangers from native life, but she made notes anyway. If It's Purple Don't Eat It—so much, then, for leafy plants and tubers. Animal dangers were more complex so she listed descriptions, only. Twenty kilos of river, she felt, should isolate them from the voracious “sea devils”. The slow, shy, well camouflaged little crawler with its spray of poisoned spines—only at dusk was it active aboveground. The chief diurnal carnivore shunned any prey larger than half a human's size—the predominant nocturnal meat eater fled from light. The furry hive-flyers, she read, never attack anything that remains still—and once past, they do not look back. The spitting amphibians—no, now she was past the real menaces and into the list of more common nuisances. All in all, she decided, this part of Nobody Home was less unfriendly than your average world.

Finished with her coffee she rinsed the cup, thinking, *there has to be more to it.* Well, she wouldn't find it indoors. She donned a jacket, put a notebook in one pocket and went to ground.

ON FIRST reconnaissance she and Jay had looked only for signs of human visitation. Now Raelle considered the terrain in its own right, seeking clues to what dangers might be here. *It looks so peaceful*—she saw nothing

that might bring catastrophe. All right—what if this were Earth? *Think of Earthly-menaces.* . . .

Away from the sea, toward the morning's sunrise, the land climbed in a long undulating sweep, broken by minor slanting ridges, toward a distant irregular line of jumbled, craggy mountains. Patches of snow crowned the highest peaks.

She looked more closely. The main rise of land bore the same sparse tree growth rising from the tan grasslike ground cover that here brushed her calves—the latter did not grow thickly enough to impede walking, nor did the bushlike trees, the size of large lilacs. In the distance she saw occasional blackened streaks, but none very large. Fire, then, was probably only a minor peril. Still it wouldn't hurt to clear the "grass" around *Search*—and later around whatever shelter they might build.

Fire and—yes. She walked the shortest path between brushy knolls to the riverbank and looked closely, moving slowly from water's edge to higher ground. The furthest high water mark was less than twenty meters from the present shoreline. So—floods, highly unlikely.

Storms? Perhaps—but so near the equator she expected they would be occasional, random rather than seasonal. Thunderstorms, she supposed—for what but lightning had fired the grass? No real danger, though, she decided. She entered her conclusions in the notebook, then strolled further.

The planet's sun—its light somewhat more yellow and a bit softer than Sol's—neared zenith. Abruptly she felt hunger and returned to *Search*.

SHE SPENT early afternoon taking de-

tailed inventory of *Search's* contents, beginning with the cargo manifest. When finished she headed the first sheet "Checklist" and taped the lot to the storage compartment bulkhead. From now on, each item used would be marked off the list. And she wondered—on Jay's expedition, would he find anything to add?

Between chores she sat and fell to musing. The thought came that a year ago the thought of being stranded indefinitely with only one man would have seemed unduly restrictive, even boring. Her adoption of Jay's Monogamist views had not come easily—but under the circumstances she had to admit it wasn't a bad idea!

FEELING RESTLESS, she went out again. The sun, she estimated, was at least an hour or two from setting. She looked up, trying to compare this sky's-blue to that of Earth's, and saw the faint pale edge of the planet's major satellite—larger in viewing, if not in fact, than Luna. She'd forgotten—how closely did it circle? Quite near, certainly. Which meant—she turned toward the sun and walked to the hill she and Jay had visited the day before. Looking down to the river junction, she saw her guess was right.

Today the water stood higher. She walked down to it—a few minutes' stroll—and looked carefully. Yes—following that moon, the tide still rose. *I wonder . . .* She stooped to cup water in her hand, and tasted it. Brackish—*all this way, the sea reaches. And how often?*

Twice each lunar "day", of course. And that day, relative to groundside—how long was it? Longer than a solar day, since the satellite moved with, not retrograde to the planet's rotation. If the briefing sheet

did not include the datum, they could establish it by observation.

The matter could be important. Raelle had not, in her outline, considered the sea itself—not at such distance. Now she must. First because edible sea life—more abundant than the freshwater creatures—might come with the tide. And second, because in pursuit would surely come the sea devils, the planet's most dangerous life form. The sea devil, according to the briefing sheet, was not entirely restricted to water—it could make extended forays on land.

Stay Away From High Tide!

**E**ARLY THE NEXT AFTERNOON, surprising Raelle, Jay returned. She was outside, clearing grass from around *Search*, when she saw him. The huge pack he bore looked much too heavy to carry.

"Jay!" She ran to him. By the way he put the pack down she saw it must be lighter than it seemed. First greetings were largely nonverbal—then she said, "What did you find? Tell me about it."

"Sure—once we get inside, and I have some coffee and a bite to eat. I'm halfway starved!"

"What—?"

Walking, he dragged the pack by one hand. There'd been a ship landed, all right. "—as if you couldn't guess, from this stuff I've brought." He had bundled up most of the lighter materials that might be useful—then, at the far side of the beach, under shelter of some craggy rocks in case rainclouds fulfilled their promise, had built a cooking fire.

"... and I'd taken about three bites when down at the shore the water erupted with what pass for fish here, flopping on the sand. And right behind them, the sea devils, eating

them alive! Then one of the devils looked up and headed my way, and three more followed it. Earth's bounty, Raelle—you should have seen! They—"

As he described the creatures she nodded—the briefing sheet had been accurate. Huge fanged jaws, snakelike neck and lean body, propelled at surprising speed by the undulating lower fin curtains that ran the length of that body. "The top spines and tail spike are poisonous, I think—I didn't wait to find out!" Into the maw of the leader he had thrust a burning stick—then scrambled up the rocks to safety. "They turn on their own wounded—the other three tore the hampered one apart. Then for dessert they had *my* dinner—it was scattered all over the map—and the rest of my food supplies. They nosed at the pack here but didn't smell anything they liked, I guess—there's nothing edible in it. Then they went back to the water." After a time he had climbed down for his sleeping gear—but he slept above the rocks, out of sea devil reach, and began his return inland at first daylight.

They entered *Search*; Jay sprawled in a seat. Raelle first gave him coffee—then, as soon as it was ready, food. "And what did you bring, Jay? Is there more—anything worth going after with *Search*?"

He shook his head. "About moving *Search*, I'm not sure—we'll have to talk that over. What I brought—the bulk of it is light sheet plastic, discarded wrappings. Should come in handy. There's some miscellaneous metal—frame components, odd parts and fittings, that sort of thing. Aluminum alloys, mostly—not heavy. And a few equipment modules that may have components we can salvage. Most of the portable stuff worth tak-

ing, I think I got—maybe a closer look would find more.”

Ralle sipped her own coffee. “Portable? Is there something more, then, that’s important?”

“Except for a big coil of wire, too heavy to carry except in sections, I don’t know yet.” Frowning, he explained his other discovery.

The visiting ship, of course, had had its own fuel synthesizer. And once, at least, that device had malfunctioned. What Jay had found—nearly two cubic yards of piled debris—was a spoiled batch, jet-tisoned. “I sampled the tailings, washed downhill from the main pile—and then got away fast. It’s part stable fuel, part raw ore, and a lot of intermediate products. Hot as hell—at night you can see it glow.

“Radioactive and lethal.” She nodded. “So, what use is it?”

His fist thumped the table. “Scattered in that mass there’s enough fuel—I’m certain—to get us home. All we have to do is extract it—without killing ourselves in the process.” Without humor he grinned. “I don’t know. Maybe between the two of us . . .”

She thought. The way to separate a mixture is to exploit the differences in the properties of its components. She asked questions.

“Sure, Ralle—I found their diggings, not far inland. I’ve got a shielded box with about a quarter-kilo of the richest ore, for comparison testing. I expect we can spare a few grams of fuel to experiment with. But the problem is—then how do we handle that pile of death?”

THERE COULD BE no quick or easy solution—they did not expect one. A synthesizer works with high energies, at low efficiency—first primed with

existing fuel, its operation consumes a considerable fraction of its product. But Jay and Ralle had access to no such energies. They were limited to the use of gravity, hydraulics, some lowpowered electrical devices—and only what could be arranged by the muscle power of two human beings, to operate at a safe distance by remote control. Their tests of the samples showed what was needed. . . .

One afternoon he pushed a stack of sketches across to her. “Check me on this latest version? I can’t see doing it with anything less.”

She looked, nodding as she leafed through. River power was the key, they had decided—muscles and materials were the limits. First the dragline, to move the pile of mixture—a little at a time, without ever having to approach it. Then the pump and the sluice ditch. She looked at Jay’s alternative, a centrifugal separator, and shook her head—it looked too prone to failure, and near that much radiation there could be no repairs, only the building of a complete new unit at a new, uncontaminated site.

The bucket chain for recycling, yes—and the remote recovery tongs and container. The magnets—and the waterpowered generator to energize them. Neither densities nor magnetic properties alone differed enough to give much separation in a reasonable number of recyclings. But working on both together? She made a rough calculation; the result was better than she had hoped.

She saw him waiting for her answer, and smiled. “It’s good, Jay—except for the centrifuge.” She explained her objection.

He shrugged. “So we lose it. If it works for a reasonable time it’ll pay for itself. The design’s simple—quick to build.”



"How quick, Jay? For *all* of it, I mean. Can you make an estimate?"

He looked down at his clasped hands. "If we could live there, work on fuel and nothing else—six months, not much more. Two, maybe, to get into production, and another four for the rest of it. But—"

"Jay, we could move *Search*. I—"

"No. Not down there. I saw signs—the *ship* that was there, weapons and all, had trouble with the sea devils. Same as the one that reported this planet to the Earth we just left—four or five days after landing on the beach they noticed the sea devils gathering, and from then on it was practically constant siege and attack. I don't know how long it would take them to lose interest and disperse, once you leave. But I think we'd better figure to work there only two or three days at a time—and that's well back from the beach itself—doing as much prefab work as possible up here first." He sighed. "And on that basis, and with the *survival* work we need to do—"

"Yes? How long?"

"I don't see us off this place in less than two years."

He looked beaten—she said, "So soon? I think we can manage very well, for that long." She watched his expression change—he grinned at her and reached to squeeze her hand.

After a moment she said, "You mentioned survival work; I've made some notes." She handed him the outline she had prepared, of needs and precautions for living on the planet. "Here—see if you can think of anything I've missed."

When he was done with her lists he looked up and nodded. "It reads fine to me. And first of all we'd better get set up, here—if you like, we can start on the hut tomorrow."

**T**HE BUSHY TREES provided no real timber, only sticks and poles. So Jay and Raelle experimented and settled on a woven structure—withes caulked with riverbank clay, and a sod roof over the framework. Door and two windows were plastic sheeting—three thicknesses—over metal frames. Raelle improvised hinges—metal studs, top and bottom, pivoting on holes in the thickest available wood. After Jay finished digging a perimeter drainage ditch he welded fittings to make a simple but secure lock. Inside, with the ground cleared of grass, hardpacked clay dried to make a firm floor. More clay cemented stones together to form the central fireplace. Above it, capped by a tee-joint to discourage rain, conduit pilfered from *Search* became a chimney.

Construction, plus clearing the grass from around both *Search* and hut, was completed in nine days. Then for the first time they slept in their new home.

NEXT THEY TACKLED the problem of an ongoing dependable food supply. Including storage—there was no reason to expect interruption of the area's bounty, but "Just in case . . ." Fruits and meat could be dried—tubers would store well in cool darkness. Some other foods could only be eaten fresh, not stored.

From a childhood summer on a Canadian prairie farm—a dozen of the girls at the Care Center had gone there to work—Raelle remembered and described the root cellars. "We could dig one, Jay." When they had done so, with special attention to a solid roof and secure door, they began stocking it.

Next came hunting. By practice Raelle attained skill with a sling—and

found she had the patience to stalk her prey. Filching a coil of monofilament line from *Search's* cargo, Jay experimented with snares until his designs began to succeed. Small animals, seldom weighing more than five kilos, made up most of their catch.

Drying the meat presented problems—when they hung it high enough to frustrate roving scavengers, it attracted the hive-flyers. As a compromise they moved the drying racks well away from the living area and draped them with some of Jay's salvaged plastic sheeting—arranging it so that air could circulate but the small flyers, baffled, bumped the plastic for a time and went away.

In their fifth week Jay and Raelle went across the hills, only a few kilometers from the sea, before they found a way down to that reach of the river—and a suitable place for their next project. Two days of digging made a ditch that allowed high tide to flood a shallow basin. They dammed it off again, then—in a few more weeks they could return and collect salt from the dry pan. Salt meat would be a welcome complement to their dried stocks—and under the circumstances, no more difficult to prepare.

THEY DEVOTED their evenings to design and fabrication of their "mining" equipment. Jay's first proposals had been in the rough—putting numbers to them took longer, and actual construction sometimes turned up flaws. The big waterwheel—light metal frames covered by the salvaged plastic sheeting—was one of the few devices that worked properly on first testing. Jay brought it back—disassembled and folded—from the nearer river, and said, "If we have at least half the current downstream that we have

here, I've got the torque we'll need."

He had to scrap the pump entirely, and begin anew. "The design—well, it's standard, but not with the materials on hand. It works but I wouldn't bet on it to hold up long enough." Raelle sat with him, matching scribbles—did this design or that use less moving parts under stress? Which was least prone to failure? Later, she did not recall which of them suggested the simple device, rotating as a whole—Archimedes' Screw. But she helped him shape the aluminum helix, held it steady while he set the supports, one for each two-thirds of a turn, that held it solidly to the central shaft, and cursed along with him at the perversity of simple plastic as they shaped it into water-lifting spiral and then sealed around it the outer cylinder. At the river it did not leak—and in use it would be very lightly stressed.

Of the generator and magnets he could build only the frameworks. "Until we bring up a load of that wire, from the beach."

But at least, she thought, it was all moving now!

ONE AFTERNOON when they were nearly two months aground, Jay came running toward the hut. Raelle, packing berries into nests of dry grass for storage, looked up at him. "Something's wrong?"

Out of breath, he took a moment before answering. "Not sure. Sea devils—first hill above river junction, one almost to the top."

Shaking her head, she stood. "Do we know how long they can breathe air—how far from water they can go?"

"Not really—all the reports are from seaside, like mine." He wiped sweat from face and forehead. "I thought, now's a good time to find out

a few things—but I had nothing to work with. I was fishing—they were behind me before I saw them. Tried to use fishline as a noose but the damned beast was too strong—almost tore my fingers off when it pulled free. Then it charged me and I ran for daylight!” Now his breathing slowed to normal. He grinned. “The fire’s going?”

“Sure. But—? Oh, of course—at the beach you used a burning branch to fight one off.” She frowned. “You think we can keep sticks alight, that far?”

He laughed—for the first time in weeks she glimpsed the spirit that drudgery had dimmed. “In a bucket of coals—I carry it—you steady the upper ends.” He looked around. “Rocks, too—the biggest you can sling. And I’ll fix a noose, a snare—but with a handle I can *hold*.”

ONCE THEY’D DECIDED, she thought, the preparations hadn’t taken long. She jogged alongside Jay, one hand holding the lengths of wood that nuzzled the coals in his bucket. The bag of rocks for her sling thumped against her back and side.

And atop the hill overlooking the river junction they saw four sea devils. Shifting, weaving on the undulating, curtainlike fins, the creatures milled. One, then another turned to face their approach. She and Jay paused on sloping ground, about level with the hilltop, and stared across the intervening dip.

The animals were dark grey above—slightly tinged with green—and a pale, muddy yellow underneath. Their skins, smooth and rippling with their movements, looked moist. “How big are they, Jay? There’s nothing near them for comparison.”

“Two meters long, a little more. They stand not quite a meter high, but they can reach those jaws up nearly as far again.”

Single file the sea devils came toward them—slowly at first, then gaining speed. Jay set down the bucket, added dry grass for tinder—soon his improvised spears took flame. “Let’s separate a little, so we can come at them from two angles.”

“Yes.” Raelle took two of the burning limbs, along with her sling and the rock bag, and moved five meters to her left. “And by waiting here; we make them attack from below.”

“Right. If we can’t stop them—well, we’re fresh for an uphill run, and they’re not.”

Fascinated, she watched the leading attacker. Mouth agape—long jaws like a crocodile’s but behind them a bulging forehead and widely mounted eyes. At the sides of the neck—were those gills? But in the chill air of late afternoon, steam came from the mouth. No matter, she thought—the creature’s biology wasn’t of prime importance just now. The crucial item was: could these things *learn*?

**H**ER PULSE RATE climbed, her palms began to sweat. Deliberately she slowed and deepened her breathing—yet she felt nothing. Except for pallor, Jay’s face showed no sign of fear. Now the leading sea devil—undulating, darting its head from side to side—charged him. He thrust flame into the toothed maw and pivoted away. The creature shook its head, hard—jaws closed on the stick and snapped it, leaving Jay holding the remnant. Mouth opening and clashing shut in effort to rid itself of the smoldering wood, the animal wheeled toward Raelle.

The sling! Her first stone caught

the forehead squarely where it joined the muzzle, but the creature barely faltered. Another stone into the sling's pocket—a larger one—but instead of throwing she held it, swinging from her hand as she aimed her own burning stick.

She missed—jaws closed and her thrust glanced away. She jumped to her right and—still holding both thongs—swung the sling against the side of that fearsome head. The blow saved her, knocking the muzzle aside as the charge passed. The sea devil turned to face her. She lunged and swung the stone again—this time at the undulating fin curtain, raking half its length. And the strange organ of propulsion folded—the supporting spines crumpled. At the front, the creature's left side slumped to ground. Now, watching its lopsided slither, she saw her earlier strike had crushed an eye. She lofted the sling, aiming for the spine behind the crained bulge—and Jay shouted.

"Behind you!"

She spun, pulling her blow off target—no time to correct it. She leaped high, tripped on a lashing tail as she landed, rolled and then scuttled downhill before she dared turn and stand. Respite—for the moment, the first beast had the second by the neck.

She turned to Jay. He had partially hobbled one of the devils—a branch pierced both fin curtains—its movements were slowed and awkward. Jay's snare, handle gone, hung from its mouth. But the fourth animal had paused and was circling to their right, putting Jay between it and the hampered one. And now for weapon Jay had but one piece of smoking wood.

She looked back uphill. Her remaining spear was there, beside the sea beast that had now broken loose

to finish off the cripple. And her rocks, save for the one still in her sling—they were there also. Too far—there wasn't time!

Abruptly she chose her course. While Jay warded against the last comer, she went toward the hobbled one and sidestepped its lunge. Again her swung stone damaged a fin curtain—and twice more, until the creature toppled. Then she tried for the spine behind the head. Whether she killed or not, the sea devil curled up and convulsed. Its struggles weakened—she reached and tugged Jay's spear loose from the remaining fin.

She looked to see him thrusting and swinging the stub of a branch—the rest was gripped crosswise in the fourth devil's jaws. Then the creature dropped it—with short steps Jay moved back, away, and looked to her. "Here!" She nodded and tossed the spear—he caught it, shouting, "Flank it!"

As the sea devil hesitated they approached it—one on either side, waving their weapons to distract. It turned to her—Jay jumped and attacked a fin. Snarling—the rasping noise surprised Raelle—it whirled toward Jay. She moved and swung the stone—breaking fin spines once, and then another time and another. When the animal crumpled toward her, Jay thrust the shorter stick at its left eye and threw all his weight on it.

Before the thing could die Raelle heard sound behind and turned. The second beast from above! Free of its crippled cohort and bleeding from neck wounds, it rushed down upon them. Raelle screamed a paean of wrath and outrage—she sprang to meet the beast. She could not face it squarely—she had no time to look to Jay's protection—she dodged aside.

and with all her might spun the slung stone into the sea beast's jaws. Staggering, brushed aside by the harsh edge of the undulating fin, she saw fangs shatter and the stone lodge firmly in the jaw hinge. She fell, turned and came up weaponless.

Jay! Down, thigh running blood, he rolled to sit up. In desperation she looked for some weapon—there was none—and the sea devil, jaws wedged apart by the stone, spun to attack again.

*There has to be something!* Her will, her volition, disengaged—she watched herself pick up the only human artifact, the bucket, and catch the gaping fanged snout. The beast's rush knocked her down—she scrambled up and stood watching. The creature bucked and writhed, rolling over and over. Only when its efforts lessened to a slow jerking of the neck did she realize she had thrown the burning coals down its throat.

"THEY'RE as near dead as doesn't matter." Jay's voice was flat, controlled. "Getting back to *Search*, I may have a problem." She looked. He was bleeding badly—she swallowed fear.

It was his injury, his decision. She tried to match him, to keep her own voice calm. "Which is best? Me to run get the emergency kit, or both of us to go together?"

Now his pallor was not from fear. "Together—if I wait, this will stiffen. Better to do the walking now."

What he said made sense. "All right. I've got to bind that wound, though—you'd lose too much blood."

"Sure. You mind using your jacket? I can't spare any clothes just now—I'd be risking chill on top of shock."

"I know, Jay." Quickly she folded part of her jacket to serve as pressure pad and tied the sleeves tightly

around his leg. He still bled, but less profusely.

THE WALK BACK, she knew, could not last as long as it seemed. Blood seeped down Jay's lower leg—after a time, at each step a small amount pumped out of his shoe. Are you all right?"

"I think so—I'll make it. Shoot me full of blood neutral concentrate, first chance—that's all."

"Of course—and we'll go to *Search*, where the couch can be set to warm you. Not to the hut, tonight."

"Good—we're thinking alike." Frowning, he shook his head. "One thing—you know how to skin a carcass?"

"I dress out my own hunting catches—you know that. Why?"

"We need a boat—the trail to the sea, such as it is, takes too long. And we may run short of plastic sheeting. I want those sea devil hides—and any bones big enough to help with the framing. The hides, now—they'll have to be cut carefully."

"Don't worry, Jay—topology was one of my best subjects."

**F**OR A TIME the leg was bad, but eventually it healed. Raelle skinned the sea devils before they stank, then dragged the carcasses down and left them in the river to be eaten clean so the bones could be salvaged. Jay knew how to cure the hides, and did so. Once he said, "I suspect our remote ancestors started out something like this."

Raelle grinned. "I hope they had a little easier time getting their raw materials."

ONE DAY the boat was complete. Framed of wood and bone, covered for the most part with sea devil skins

and the seams caulked with pitch, the narrow oval craft was heavier than it looked. But as they carried it to the nearer river, well above the junction, Jay no longer limped.

As they pushed off he knelt in the bow, Raelle in the stern—though the two ends were identical, interchangeable. At first they handled the paddles awkwardly, making the boat yaw when one or the other lost the rhythm of their mutual effort. But with practice they caught the knack and kept a straight, smooth course. Only after several days of short expeditions upstream and back, however, were they ready to put their skills to real use. Early one afternoon as they pulled the boat safely clear of the river, Raelle said, "If we bring everything down here today—except the food, of course—loading won't take long tomorrow. We can get an early start."

"Yes. Fuel supply, here we come!"

LAUNCHED AND TETHERED, then weighted with cargo, the boat sat low in the water. "Pretty, big load this time," said Jay, "but we saw from above, the river's smooth all the way. And besides the equipment, we do need to start a reserve food cache there."

They clambered aboard—Jay shook the line loose from its stake and pulled it in. Paddling, they turned the boat and pointed it downstream. Now, loaded, the craft was more sluggish, less touchy to control. In a few minutes Raelle had the hang of it, and compensated almost automatically for any imbalance in Jay's more powerful strokes.

They reached the hills. Between higher and higher banks the river bed became a shadowed cut. Current remained slow and steady—only occa-

sionally at the sides, where material had fallen to obstruct the flow, did she see eddies. Hypnotized by the monotonous action and quiet sounds of the current, she fell into reverie. Where the river curbed, it did so gradually. When one such curve brought sunlight fully across the water, she realized they were nearly through the hills.

She had no idea how long the trip had lasted. Then Jay pointed to their right, to a pocket of sloping beach. They nosed the boat into it. When she stood, and felt the protest of her cramped knees, she knew they had paddled for longer than it seemed. Wading, Jay held the boat as she hobbled ashore—then, on soft sand that would not damage the hide covering, they dragged it as far out of water as they could manage, before unloading. And then they moved it well above high tide mark.

Now Raelle paused to look around her. Less than a kilometer away, beyond a cut through one last craggy ridge, lay the sea. Here, above the narrow beach the land rose, split by a small gully, to meet the valley floor between the seaward ridge and the one behind them. Up the slope zig-zagged a trail of sorts—brows raised, she pointed to it.

"The people on the ship, I suppose," said Jay. "I saw signs of them further inland, too, but only for two or three kilometers."

She nodded. "Their camp is above here, in this valley?"

"Remains of a work camp, only. The ship was on the ocean beach—if they ever moved it except to leave the planet, we'll probably never find out. But above here was their synthesizer operation—that's where our fuel is, if we can separate it out."

"That trail, though—the gully looks

like easier walking."

Jay grinned. "If you're immune to radiation, it is. Where do you think the synthesizer's tailings washed down when it rained?"

"Oh, sure." Shrugging, she put on her personal pack. Jay did likewise. Each also carried food for the cache they planned to start. They climbed up the trail into the lateral valley—the land here, and its vegetation, were much like those at their own base. Then they turned left and ascended the seaward ridge, not stopping until they were among the rocky crags that topped it. There, out of sea devil range, they could eat and sleep safely. And first they ate.

From their site near the end of the crag wall they could see beach and ocean, the river and the terrain across it, the valley behind and the next landward ridge. Jay pointed to a hill-ock near the gully—similar to a number of others except that this one was bare of vegetation. "That's our contaminated fuel pile. I didn't spot it in daylight—only when I saw it glow. Should have, though—nothing grows on it, and the grass around is stunted and sickly."

Raelle looked at it, and estimated its distance from the beach. "Jay—it's too far. We'll never move that down to water—not when we don't dare get close. Your dragline—I had no idea!"

He shook his head. "I know. Oh, it'd work all right—but if we tie up that much of our monofilament line, we're in trouble. Especially as it might end up too hot to salvage."

"Then how—?"

"Basic idea's still good—the remote control bucket—open it, drag it across the pile, close it, get it down to the edge above the sluice ditch and dump it. Right? We just handle it a little differently, is all." He grinned. "You

and I move down past the pile, one on each side and well clear of danger—with a line strung between us and the bucket in the middle. We guide it down the gully and stockpile where we'd planned."

"And from that point we could use a *short* dragline." Now they considered other changes in their plans—trying to simplify, to hasten, to minimize effort. Then after gathering firewood for evening they returned to the river beach, and there Raelle saw a way—by moving the pump site to make use of existing contours—to reduce the digging needed for their sluice ditch. "And if we set up the pump *first*, Jay—the water will wash some of it out for us."

So they cut slim branches for supports, drove them deep in the ground, measured angles and distances, notched other branches and tied them in place, and lubricated the notches—to serve as bearings—with crushed, oily leaves left from the cutting. At last they could mount the pump—Archimedes' Screw—and assemble the huge vaned water wheel to drive it.

The sun was low and Raelle felt hunger when they lowered the paddles into water and secured the shaft. Quickly Jay strung belts around his pulleys—for trial purposes he omitted the remote control lines and merely hung a rock in a bag attached to the idler pulley, to keep the pump engaged. Now they waited, and were rewarded—even such slow current, pushing against so much area, produced rotation. Jay's pulley ratios gave the pump a faster turning—river water began to climb the screw.

Glancing toward sunset, Jay said, "We'd better watch this from above—I don't want us climbing that trail in the dark." So up they went,



and light remained long enough for them to see water emerge at the top and spill into the natural channel they had improved. Then in sudden dark they climbed to their crag, barely silhouetted against sky. When the fire came alive to her kindling Raelle was glad—and more so when Jay served their hot meal.

Their sleepshelter was warm and comfortable. If Raelle dreamed, she did not remember it.

**T**HE FOLLOWING DAY they began a new project. Flow from the pump lacked vigor for real sluicing action—the solution was a catch basin with a spillgate and its necessary control lines. After disengaging the pump, letting the waterwheel run idle, Jay drove stakes to guide their work. Raelle was relieved that his plan involved more damming than digging. A plastic sheet weighed down with rocks rendered the loose fill more or less waterproof, and when the pump was tried again, leakage at the improvised spillgate was minor.

While the basin filled—they guessed it would hold nearly three thousand liters—Jay chose a control site, above and behind their new reservoir, and anchored his lines to a stump. “We can get fancier later.” After a time he opened the spillgate—water washed down the ditch with a satisfactory rush. “Controlled batches,” he said. “Maybe it’s a good thing. We’ll have a better idea how it’s working as we go along.” He reclosed the gate.

That day’s job was done; they walked up the trail. Fatigued, Raelle was glad to go to bed early.

NEXT MORNING they descended the seaward side of the ridge. Near the bottom they paused to look carefully

at the littered beach. No sign of sea devils—they continued.

Around the blackened depression where the ship had sat lay its discards, scattered haphazardly. Jay showed the coil of wire he’d found—the torus was nearly a meter in diameter and more than a tenth of that in thickness. Raelle saw why it had been left—along one side something had slashed through perhaps an eighth of the turns. On a ship, wire in such quantities was handled by a mechanical dispenser—the coil would be worthless. She said so, and added, “But here it’s priceless, instead.”

“Yes.” They undid the ties that held the coil and carefully removed the cut pieces and laid them to one side. “Might come in handy later, for something.” Now, using a metal bar to pry the heavy layers apart, they divided the coil into two, cut the strand between them and tied them separately. Jay tipped up the smaller portion and lifted it briefly. “This is enough to carry—and only over to the river, at that. We’ll bring the boat down for it.”

He looked around and picked up a two-meter piece of thick metal pipe. Then with the coil slung on it, one end on his shoulder and the other on Raelle’s, they made their slow way to the river. Where ridge, beach and river joined, they set it down.

“Whoosh!” Raelle laughed. “That’s work.”

“I agree. The original coil—I’d guess that at close to two hundred kilos.”

They rested a few moments, then returned to the landing site. She looked here and there, briefly inspecting one pile of litter and then another. “I don’t see anything useful enough to take along. Not this time, anyway.”

"Me too." So they climbed the ridge again and ate lunch. It was still morning, but Raelle had good appetite.

After arranging their food cache and a supply of firewood for future use of the campsite, they went down to the river. The pump worked perfectly—over the dam came a steady flow that had begun to wash their adapted channel clear. Jay did some digging to improve that action. Then they pulled the boat into the water, grounded only enough to hold it against the current, loaded their gear and prepared to leave.

The creatures did not turn toward the boat—without pause they continued on their way.

"So much for that," said Jay. "Let's go."

"Yes. It's a long walk."

PASSING the junction they stayed well away from it, and circled to approach *Search* and the hut. They saw nothing move—but paths of flattened grass ended at their clearing, and the root cellar's door bore scratches. "Tooth marks?" said Raelle.

"Probably. And the grass—those long curtained fins—"

"They couldn't have got here so soon!"

He looked at her. "Others could, while we were gone. We'll have to—" He stared at the hut and the space around it, then shook his head. "I don't know. Let's eat—and then go to *Search* before dark, and spend the night there."

Raelle's fists clenched. "I won't give up what we've built."

"Neither will I. The only thing is, we need to look over our resources and see what's best to do."

NEXT MORNING, after considerable

discussion, they began to do it. Some sort of electric fence seemed the best solution—the details did not come so easily. The source was simple enough—the Skip excited used high voltage pulses. Jay disconnected that output from the exciter itself and brought the lead outside the unit. "Now," he said, "how do we use it?" "The wire you brought—is there enough?"

"And more. But that insulation's tough—and melting point nearly as high as the metal itself. It'd take us a month to strip enough for the perimeter we need—but we may have to do to just that."

"May I have some—to experiment with?"

"Sure. And I'll be running the alarm and control circuitry—no matter how we work the rest of it, we'll need that." He cut off a few turns for her, got out a tool kit and left the Can.

Raelle studied the wire—almost three millimeters in diameter, including the thin, tough insulation. Obviously it could carry many times the current they'd be using. She adjusted a stripping tool to the proper size and slowly, with difficulty, stripped a short length of wire. Jay was right, she thought—at least a month's work. She set the tool aside, stood and poured herself a cup of coffee, then settled down alongside the "junk box" of miscellaneous tools and parts that didn't quite fit any standard storage classification. Sitting on the deck she picked up, looked at, tentatively experimented with one item after another.

The insulation was crushproof—it still held when the wire flattened. A scraper, with all the weight she could bring to bear, slid along and barely left a mark. And this tool—and

that—nothing worked. Idly she squeezed the handles of a three-jawed device used for applying crimp-on taps, and recoiled the power cord that heated the jaws for faster penetration. Now if only they had two or three thousand crimp-on taps. . . .

She was pouring her second cup of coffee when the idea came. Cold and forgotten, that cup still sat full when Raelle finished her first hundred meters of wire.

"Tide's out and just turning," said Jay. "We'll want the harpoons handy." Raelle nodded—the lengths of aluminum rod, tipped with great jagged barbs, were Jay's innovation for fighting sea devils. Once jammed into a carnivorous maw the weapons could not be removed, short of dissection. Raelle put three into the loops near Jay's station and three more for herself.

"All ready."

Pushing off, they paddled downriver past the ridge, to where the coil of wire lay. They placed that weight carefully over the central intersection of major frame members—and now the upstream journey began. Incoming tide further slowed the gentle current against them—they made fair progress but Raelle soon realized they could not travel upstream without occasional rests. She said, "Our salt pan—is it too soon to check it?"

"Might as well. It's not much further." A few minutes later they sighted the place and went ashore, to find more dried salt than Raelle had expected. She collected it, saying, "Don't worry about the sand, Jay. Salt dissolves, sand doesn't." He laughed.

They reflooded the pan, closed the access ditch again and were ready to leave. As they got into the boat, Jay pointed. "Sea devils—coming upstream. They're moving faster than

we can."

Raelle knew what he meant—the harpoons were for emergency, not for any deliberate challenge to the beasts. "Yes—and if we wait here and let them pass they'll be ahead of us, maybe coming back and meeting us before we get there." She sighed. "I guess the wire has to wait. Let's drag the boat up to safety and take what we can carry on foot."

"I suppose so." He frowned. "Let's wait a while, though—up above, where we can still see what happens down here."

"Why—"

"The hides—the boat. Will the sea devils go for the scent, or did the curing process change it enough?"

Raelle shuddered. "I'm glad you didn't mention that idea before!"

When the boat was secured, Jay again untied the coil of wire and separated it into two parts. The smaller, now tied separately he slung over his shoulder. After checking to see that they left nothing they would need, they hiked to the top of the river's cut. Turning, they watched the sea devils—six of them—breast the slow current.

"WELL, it struck me we didn't need the insulation off, Jay—just breached at close intervals. So I cut one of the taps into thirds and brazed those to the jaws—and went whomp-whomp-whomp every ten centimeters or so." She flexed her right hand. "It gets tiring."

Wiping sweat from his forehead, Jay smeared dirt. "So at every whomp the hot tap punched—what is it?—ten or fifteen holes through the insulation and made melt spots on the wire itself. How'd you ever happen to think to try it?"

The question had no answer—

Raelle shrugged. "Want anything more to eat? More coffee? And tell me what you've been up to?"

"I'll get it—thanks." Sitting again, then, he said, "It's easier to show you than explain it, but . . ." What he had done was to build a circle of stone cairns around the area containing *Search*, the hut and the root cellar. "And I'll tell you, that's a lot of rocks."

"To carry the wire, for our fence? But how?"

He moved his shoulders, the way he did to relieve tension, and grinned. "The laser drill won't light dry grass at fifty centimeters, but it'll punch through stone for nearly twenty. I just drilled holes in the top rocks—we'll thread the wire right through, all around."

Then he told the rest of it. The wire loop itself would detect intruders by body capacity, operating the high voltage pulser. In the inactive mode, current drain was minimal. "One of the spare sensor modules, with a few changes, will make the switch-on unit. Then I need to rig three items, duplicated here and at the hut—an alarm when the thing triggers, an activating switch and a red light to *show* it's activated, so we don't forget and go out and fry ourselves by mistake."

"This thing's definitely lethal, Jay?"

"If it isn't, our Skip exciter's in big trouble."

THAT AFTERNOON they finished processing the wire—perforating the insulation to unleash the high voltage pulses—more than enough for the simple perimeter Jay had staked out. Next day they completed the installation. Jay built two more cairns and they strung a second line of defense across the section that faced the river. Then at Raelle's suggestion he drilled

more stones in every cairn—so she could lace each one together, with monofilament line, into a solid unit rather than a loose pile. And finally they arranged three floodlights so that either from *Search* or from the hut, the entire area could be lighted.

Lunch came late that day, but the sense of accomplishment gave it an added tang. Afterward Jay checked his traplines and returned with a catch of three, strangled in his snares. He tied a line to one furry leg, crossed the defense perimeter and signaled Raelle to activate the unit—then he dragged the creature toward the innocent looking wire. Before it touched, the wire *hummed*—near it, wisps of grass jerked and flattened—then a raging blue maze of lightning reached out to the small carcass. When Raelle turned the system off and Jay pulled the remains to him, he found a charred rigid mass.

He showed it to her—she shuddered and said, "I think we're safe here, now, from sea devils."

NOW THEY concentrated on gathering food and building more components of the fuel recovery system. Raelle's first attempt at salting meat went bad—the second and later batches were successful. Then it was time for another seaward trip. With shelter and food provided at their cache among the craggs, they burdened themselves only with items for the fuel project.

Still, it was a long hike to the boat. They found it undisturbed. Before boarding, Raelle gathered the new accumulation of salt—on the return trip they might not wish to stop. And again they flooded for the next batch.

The rest of the journey went quickly. Finally, rounding a bend, Jay shouted, "The wheel's still turning!"

and in a moment Raelle saw it also. Soon they beached the boat and inspected their handiwork. "Looks fine so far," said Jay. "We might as well unload this stuff and lay it out for assembly." He paused. "On the other hand, you're probably as hungry as I am. I can do this by myself about as soon as you can have something cooked up. All right?"

"Fine," and Raelle started up the trail. Besides a waterbag she carried only the remote control bucket with its attached lines coiled inside it. Up in the valley, where her path most nearly approached the bare, deadly hillock, she set it down. Then, almost unladen, she climbed to their base.

It too was undisturbed—the sleep-shelter, food cache and stack of firewood. She built fire and selected food for cooking. When it simmered with a soft, bubbling murmur she turned away and moved to look down on the ocean beach.

A movement caught her attention. Out from the shadow of the rocks below, where Jay's tracks and hers emerged onto the sand, moved a sea devil. Its undulant course took it toward the water, crossing and recrossing the path they had taken to inspect the ship's leavings. When the animal reached the strewn debris it nosed at one item and then others, circling among the littered piles. Smelling? Raelle didn't know—she kept watching.

Finally it reached a heap of light materials—scraps of plastic, disposable wrappings and other miscellany. After nosing at the mass it put its head down and slowly burrowed in until it was completely hidden.

Then, although Raelle looked carefully, she saw no further move.

WHEN JAY ARRIVED, she told him. He

pointed. "You mean it's still under there, right now?"

"Unless it can dig like a mole, it is."

He started to frown, then looked more closely and matched her smile. "You think it smelled our tracks—and has brains enough to lie in ambush? But why wait so long? It's days since we were last here."

She thought. "Maybe it comes every day—it or another—and sniffs at our path just to see if we've used it again."

"One thing," he said. "We'll make sure that here—and at the river beach, and up home—there's no haystacks to hide in."

While they ate—and later, as long as they stayed to watch—the hidden sea devil gave no sign.

THE BUCKET was a success. From safe distances to either side, each pulling on a line, Jay and Raelle dragged it to and over the pile. The leading edge dug in and stuck—they moved down hill to get a better force vector, and eventually the bucket followed. It came over the crest of the pile nearly filled—jerking on the auxiliary line, Jay closed it. Then, merely a matter of herding the weight down the gully—moving ahead, pulling until it rolled free, snubbing the lines tight at the end of each move. Through the perforated surface, at every turn useless dirt dribbled. Finally, far enough up the gully to leave the beach safe, Jay reopened the bucket and they dumped it.

"Safe for now, that is," he said. "Once we start working the stuff down there, it's all off limits and we do everything by remote. Let's bring a couple more loads down and then go set up the stuff we brought."

They did so, ate and spent the

night amid the crags. Next day, shortly after midmorning, Raelle said, "One more bucketload, and let's go. We can beat the tide enough to be past the hills before any sea devils could catch up to us."

They saw none of the creatures. This time they returned the boat all the way to home beach.

THE NEXT TRIP they equipped the sluice ditch—framework and tilting baggles, the electromagnets, the handbuilt generator with its own waterwheel to drive it. And for all these things the control lines—some electrical, others mechanical—operated from a safe distance above. "Once we start processing," said Jay, "we don't want to go in there for *anything*."

"Even a brief exposure?"

He smiled and squeezed her shoulder. "Yes—I'd take that chance, if need be. But we have to *plan* it the way I said."

"Sure." Raelle shrugged. "Well, we can check everything out each time we come here, before we start a real fuel run."

And when they next returned it was to place still a third waterwheel, driving a monopole generator. "Low voltage," said Jay, "but in this water, considerable current." Constant potential across the ditch, near the lower end of the controlled section, would help sideline two of the more dangerous radioactive contaminants into a branch of the exhaust channel. A small advantage, but worth the effort.

Jay's pet project, the centrifuge, died on the drawing board. "With the current we have, and available materials, I just can't get enough angular momentum. Except maybe in a tiny unit, for pea-sized batches—and we have no means of handling anything

so small, from a distance."

Between trips they worked at finishing the rest of their "mining" equipment, gathered more food, built a second root cellar and another hut—windowless—for storage of non-perishables, and continued normal maintenance routines on *Search*. Now and then they checked the communication bands for signal, but neither really expected any contact. Not here—not on Nobody Home.

ONE DAY Raelle, bringing in a harvest of berries and tubers, heard sounds behind the hut. Dropping her bag she pulled the harpoon from her belt and shook loose its attached coil of line, looping its end around her other palm for solid grip. She looked to each side of the hut—nothing moved. She stepped back a few paces—to circle at greater distance, with more room to maneuver. As she sidled to her right—slowly, watching for the thing she feared—a sea devil came around the far side of the hut. For a moment it did not appear to notice her—then its head swung toward her and it charged.

Turning to face it she stumbled to one knee. Before she could rise the creature closed with her. Two-handed she thrust the harpoon into its gaping mouth—the jerk of its neck pulled her offbalance. She fell to one side and the jagged fins writhed across her legs. Rolling, she came to her feet—harpoon jutting from its maw the sea devil wheeled toward her.

She still gripped the line. Now holding it with both hands she ran to one side—but the beast turned also, balking her attempt to snub it to a halt.

The circling brought her near a tree—she angled to and then around it, pulling the line taut. The sea devil

tried to follow but she was faster—she lapped it, threw a bight of line around the harpoon and tied a quick knot. Panting, she jumped back.

Lunging against the barbs in its throat the beast screamed—again and again—never before had she heard one make that sound. Legs shaking, she got a knife from the hut and cut the creature's throat.

As soon as it ceased to move she skinned it, heedless of the blood that drenched her. This time she excised the great neck muscles and those that drove the propelling fins, and cut the flesh into strips. She was hanging these in the drying rack when Jay returned.

He ran to her. "What happened?"

The question hardly needed answer. When they were done kissing, he was as gorestained as she. "I don't know if the things are fit to eat," she said, "but we'll find out. The harpoons work, anyway—especially if there's a tree handy, to snub the line on." She drew a shaky breath. "Will you help me drag the rest of it down to the river?"

"Sure. Get yourself another harpoon first, though."

To avoid leaving a blood trail they dragged the carcass on its own hide. At the river each washed while the other guarded. Later they tried sea devil steaks. Not good, was the verdict—but edible.

THAT NIGHT the alarm woke them. Jay turned on the floodlights—they looked outside. Just beyond the guarding wire, sea devils milled. "How many, Jay? Can you see?" She blinked, trying to adjust to the sudden brightness.

He shook his head. "Six, at least. Blood or no blood, they backtracked that carcass. I—look!"

One moved forward, hesitated and then came on. As the great snout moved above the wire there came a highpitched hum, then a forking blaze of blue fire—the floodlights dimmed. When they brightened again, smoke rose from a charred, still lump. The other sea devils were gone.

"One problem," said Jay. "I knew it but couldn't see any way to beat it. While that beast is there, as long as the unit's turned on it's going to draw more power than I like."

"The others won't be back right away, I'd think."

"No. All right—I'll go out, with a harpoon for luck. When I signal, cut the circuit—I'll move the carcass as fast as I can. Anything comes at me I'll run for home—and soon as I'm inside, hit the juice again. All right?"

"Yes." There was no point in asking him to be careful.

And no need—the sea devils did not attack, nor did they return that night.

When the fuel recovery installation was completed—somewhat reduced and simplified from Jay's original plans—the weather was beginning to change. Gradually it became warmer, and wetter.

"We're practically on the equator," said Raelle. "How much change can we expect—and why?"

Jay frowned. "Nobody said anything about our orbit's eccentricity. But it looks as if there's enough to matter." Now, with the changes, they began to record temperature and precipitation. But as yet they lacked enough data to extrapolate.

ONCE MORE they took the boat downriver. This time the load was mostly food for the cache. With Jay at the controls and Raelle studying the oper-



ation carefully, they gave the recovery plant a trial run and confirmed that reasonably pure fuel could be extracted—though at a heartbreakingly slow pace.

Now they ran batch after batch—bucket, dragline, sluicing by use of gravity and also electric and magnetic vectors—for three full days. At the end of it—using normal safety gear, for even pure fuel was slightly “hot”—Jay measured the result.

He turned to Raelle and shook his head. “It’s going to be slower than I thought. At this rate, it’s six months of *workdays*, rather than the four I’d guessed. And we’ve been nearly that long already, just getting started.”

Raelle thought. “Can we take a few more days here this time—whatever it takes to finish with the bucket and have the whole pile within dragline range?” He waited, so she said, “That way, either of us could operate here alone while the other handles things up at base. We’d have to figure a schedule—how to make as much progress as we can, here, without being apart too long at a time.”

Another idea came. “This is the longest we’ve ever stayed down here, and the sea devils haven’t even begun to get interested. I don’t know if you’ve noticed, but along here they give this bank of the river a wide berth.”

He frowned, then snapped his fingers. “Sure—our wastes are poisonous as hell and probably smell like it. For now, this area’s out of bounds for sea devils!”

Briefly she thought of using a shielded container to salt the beach below their home base with the deadly mixture. But—no, on a longterm basis it would harm too much other aquatic life. Here, with the large volume of water, dilution would render

the contamination harmless fairly soon. She shook her head—at home they were relatively safe so long as they stayed alert.

He had not answered her first question. She said, “But what *about* a split work schedule, to speed things up?”

“Getting the pile moved, so one of us could work it alone—yes. But any system that separates us much of the time—I’m not in that big a hurry to get off the planet.”

She smiled and went to him. When they released each other, caressing through workstained clothing, she said, “Come to think of it, Jay, neither am I.”

ONE MORE DAY and part of another saw the deadly mix, all but spillings not worth gathering, heaped above the valley’s edge. They processed what they could before the tide turned; Jay tonged out the meager harvest and disconnected the pump. On their way upriver they collected the latest salt deposits and refilled the pan. Arriving at the river junction not long before dark, they reconnoitered as they approached their base—but found no threat.

JAY ADAPTED a power tool to pulverize the fuel nuggets. Before and after adding the powder to the shielded bin he marked down the indicator readings. “We’ve more than tripled our supply,” he said. “If we want to, we could lift and check the coastlines for signs of other landings—and still have left the maintenance power we had before.”

“And our way home? How much of that do we have?”

His mouth made a sour grimace. “Not quite ten percent. More like eight, in fact.”

**I**NCREASING RAINS changed their minds about need for a more intensive "mining" schedule. "I don't know how much worse it gets," said Jay, "but just to be on the safe side. . . ."

The plan involved more separate than joint travel, so they pulled the boat well above high water mark. Then Jay left, on foot, for the recovery plant. Two days later Raelle joined him, and after another two they returned to base together. This time the fuel indicator registered nearly fourteen percent.

Two days between moves: Raelle operated the plant alone, Jay joined her, she returned to base, he followed. Then the cycle began again.

To Raelle's thinking the schedule was not ideal either for fuel production or personal inclinations—but it was a fair compromise.

When increasingly muddy footing made hiking more difficult they changed to three-day intervals. The river began to rise, but not enough to endanger their operation—Jay raised the waterwheel mounts to compensate and the work continued. The wetter climate did affect food gathering—fruits, leafy vegetables and berries could not be stored without first drying the surface dampness. Such produce, spread on a plastic sheet under a heat lamp, filled one corner of the hut. And at the river's edge a pile of rotting vegetation bore witness to the need for the procedure.

Twice, once at night and once in daylight, sea devils made forays and fell prey to the perimeter defense. Now though—with the leakage over wet stones and through moist air, the creatures did not die. They suffered burns and writhing convulsions, but each time the injured beast managed to crawl away—slowly following its

companions that fled at the first eruption of blue flame. Raelle, alone on both occasions, wondered if nonlethal pyrotechnics might not be equally effective. She held no brief for the voracious carnivores—but she was always curious.

**IF THEIR OBSERVATIONS** were accurate, and correctly fed into Search's computer, Nobody Home was nearing perihelion. Once past it, Jay said, the rains should diminish. Raelle hoped he was right—the matter was outside her own fields of expertise.

Suddenly, fuel yield made a dramatic increase—the dragline had reached a part of the pile that was rich in finished product. "Too bad we couldn't pick that first," Jay said, "but working by remote, we have to take what we get." Two days before estimated perihelion, when he left for the working site, the bin indicator showed nearly three-fourths of the fuel they needed. But when she set out to join him, only a few kilos from base she met him returning.

He moved as though fatigues—she closed the distance faster than he. Only after they kissed and embraced, rain-wet lips slippery and cold, did she see that he was crying.

"It flooded out, Raelle! Most of our work—washed away. And for rebuilding—I don't think we have the stuff to do it!"

**LIGHTLY LADEN**, she said, "Here—let me carry some of that." He transferred part of his burden. "Now let's get back. You can tell me on the move—how bad it is—or wait until we're home and warm."

He told her. That morning when he went to the river, it had overflowed into their workings. He'd fought the

rising water for the last bit of salvageable reclaimed fuel, then tried to rescue as much machinery as he could. "I saved the dragline, of course, and most of the control apparatus. The generators—too heavy to move, in that current, even if I could have got them off the mountings. Well, maybe they're too heavy for the river to move, too. Or too well anchored, with luck. We might be able to salvage them—but don't count on it."

"No." Carefully she kept her voice calm. "And the rest?"

"Pump, pulleys, driving wheels—the things made from materials we can't replace—they *went*, Raelle!"

She had no answer. Now the path narrowed—leading the way she slogged ahead. When there was room again for them to go abreast, she paused. "Jay? Is there any place we can get to—any colony—with what we have?"

After a moment's silence he said, "I don't know—we'll have to check. I'm not sure if we have that data aboard *Search*."

"All right. When we get back—after we're fed and warmed—let's see. Shall we?"

AFTER A HOT MEAL, eaten silently, Jay looked more cheerful. He got up to pour coffee and sat again. "I've been thinking. If we have to, we can do it—start over again when the rains let up."

"You've figured it out? Tell me."

"Rebuild the catch basin—it hadn't, washed out when I left, but I expect it will. Haul water up by hand—not climbing up and down, but buckets and lines. We can't rely on either generator being there—but if they are I can try a wood-framed wheel, covered with hides. Tear up the boat, if need be."

As he talked she saw his assurance resurge. "Make the sluice ditch longer—clear the bottom all the way and run small batches with lots of washings. What we get—it'll still be hotter than I'd like. But if we have to, we can do it." He swallowed coffee. "The bad part, Raelle—figure most of a year for the job."

He was looking closely at her; she smiled and said, "If that's what it takes, that's what we'll do." She pushed her hair back—it had grown long enough to fall across her face but was still too short to tie back. "Shall we go to *Search* now, and see what we can find out about alternate destinations?"

He reached for her hand. "Would a little later be all right?"

THE COMPUTER had coordinates for several colonies—but no approved routes between them. All routing data was to and from Earth. At Can or even Krieger speeds, courses were prescribed to avoid "settled" stellar regions. The full-sized ships merely arced above the denser part of the Galactic arm—Cans generally went outside it entirely and reentered on a charted path in "clear space". Given enough fuel, Jay and Raelle could have reached any of three colony planets—by reversing their incoming course out to clear space and then computing a helix to the entry points of colony-Earth routes.

"But for us," said Jay, "those are angled wrong. Backtracking—really wasteful. Might as well try for Earth in the first place."

They discussed possibilities. Slower speeds? Cut to Krieger limits on reentry and rely on the Can's sensors to map their own path? The parameters interacted. . . .

First, though: cut the odds. Discon-

tinue all but absolutely essential drains on ship's power. Dump all mass—including cargo—not needed for the survival of Can and crew. Add the mass of their accumulated, stored food. Computer readout indicated five percent gain.

Now the trick was to find the best tradeoff between the various ways the ship ate fuel. Nonpropellant functions made a constant load—though larger in space than aground. Thrustor—"normal drive"—consumption varied directly with mass and effective acceleration. Sublight operation followed Newton's First Law but Skip Drive introduced an analogue of friction—thrust was needed to hold Redline, and at that point mass was up ten percent. . . .

Skip unit's fuel hunger went up logarithmically with Skip Factor. At ten-sixth it consumed about half as much as normal drive.

Time—would a faster or slower course use less fuel? And what about food supply, and the need to reenter the arm more slowly? Jay jotted figures; Raelle punched them into the computer, trying simulations at both fast and slow extremes. Neither was feasible. By cut and try they edged into the spectrum from either end, finding only moderate improvement. Twice the curve dipped, but neither time decisively. Jay shook his head.

"It's close, I think—but we can't bet our lives on it."

"I know. Hogan's Goat—easy range if we didn't have to go around that dust cloud. But—" It wasn't worth the try. The cloud's size was listed as being only approximate; only partly mapped. She pulled at a strand of hair that brushed her cheek. "Wait a minute—you figured all this at Redline?" He nodded. "What if—?"

For the longer, slower reentry sec-

tion she punched in Limit at ten percent of Skip-times-c, not forty-two, and adjusted the difference with higher Skip Factor. She called the figures aloud and saw Jay shake his head—not quite good enough.

Then, silently, she tried one more idea and read the result. Turning to him, she tried to smile. "I have a hunch, Jay—and for a minute, I thought it worked."

He waited, and she said, "We could make it on a Krieger course: at Krieger speeds—if only *one* of us had to eat!"

SHE SHOWED him—*Search* could store whole-bulk foods, without spoilage, for only slightly more than half the projected voyage. Finally he said, "All right—for now, we're stumped. But while we wait to start up in the fuel business again, I'll be knocking heads with this problem." He paused "Otherwise, how does it read?"

She studied the readout. "To Waterfall with nearly three percent fuel reserve—or to Mossback with half of that but less chance we'd need to use it. Mossback's on a clear space corridor."

Jay nodded. "We'll tackle it on that basis, then."

"Sure. But, Jay—we can't convert enough space to controlled environment for food storage. The power drain, for that length of time—we wouldn't get there."

**A**LMOST CONSTANTLY, now, the rain fell. For the time, they gathered no more food. One last time Jay slogged around his trapline—and left the snares unset. "I don't want to catch anything I can't go collect."

Raelle felt a nagging unease. Her mind was so fully occupied by their predicament that several days passed

before she realized the last of her contraceptive implant was triggering her body's signal. She checked the Can's calendar—no, she was not too late. Relieved, she implanted the new capsule high in her right thigh—then limped for a day or two until the soreness eased.

För the most part they stayed inside the hut, making only the necessary routine checks aboard *Search* and getting food from a cellar as needed. Once the hut's drainage ditch clogged—they had to clear it in darkness, digging frantically as the floodlights flickered but gave no real illumination. For two days they wore the mud collected in that effort—in view of the necessary return trip, going to *Search* to bathe was fruitless.

Finally, gradually, the rains diminished and the ground drained. Counting back, Raelle found they had gone more than fifty days without glimpse of sun or sky. Outside, one day, on a bush she saw among mildewed buds a flower that had opened. It would be the first of many—she picked it and took it into the hut. "See, Jay? Soon we can *live* in this place again!"

EVEN WHEN the mud dried to decent footing the river still ran high. Another ten days passed before Jay and Raelle took the boat downriver. They carried six days' food—if the cache had flooded and spoiled, they would need to renew it.

Still higher than normal, the water treated the boat roughly. Safe handling required constant care and attention—when they reached the saltpan they welcomed the excuse to pull in to shore. The lowering river level had isolated the pan once more but it still held water; no harvest was possible. They reembarked and con-

tinued downstream.

Jay first spotted the fuel recovery site; he pointed. "See? The shielding ridge didn't wash away—the basic ditch should be there." And once ashore, with the boat pulled up to safety, they assessed the damage. For one thing, the generators were gone. . . .

The worst, though, was that some of the pile itself had washed down the gully, into the ditch. Raelle shook her head. "It's all hot now, down there—all the ditch from the gully seaward. Jay—how can we work with *that*?"

They stood well away from the contaminated area, upstream beside the catch basin's remnants. Jay shook his head. "I'm not sure—I hadn't expected this. Should have, I suppose. . . ." He peered down at the sluice ditch as though he could analyze its contents by eye. "I wonder—how much of the hot stuff washed right on through, and away? I left the radiation counter stashed up above. Getting to the trail, now—I suppose the steep part of the gully is pretty well scoured by runoff. It should be safe to cross—but let's move fast."

They did, and soon climbed to the crags. The food cache, their stored tools and equipment, the tumbled stack of firewood—all were safe. Jay built a fire; they ate a hot meal. Sipping coffee without hurry, Raelle looked down to the ocean beach.

"Storms took a lot of the ship's leavings."

He nodded. "I suppose that was to be expected."

Suddenly she realized—"No, Jay! You see what it means?" His brows rose, he gestured incomprehension. She said, "Before the rains, all the debris lay on *top* of the sand—now a lot of it's half buried. Jay—in this

timeline, that ship left within the past year—since the last rains.”

Now, she saw, he understood. “Then if that was the discovery ship—help is more like fifty years away, than nine.” For a moment his face mirrored the death of hope. Then he shrugged. “What the hell—we weren’t planning to wait for rescue, anyway!”

FROM THE BANK Jay checked radiation levels in the ditch below—pointing his detector at various points and correcting for distance. Finally he switched the device off. “The gully’s washed clean enough. The ditch itself is too hot to work in, but not much. A lot of washing—and I mean a lot—can fix it.”

She looked at him. “What do we do first?”

“Rebuild the catch basin—we can finish that by tomorrow. Then I haul water up to it by main sweat and keep flushing the ditch until contamination’s down to safe levels.” He frowned. “The bucket we used to move the pile—it’s the best size. I can line it with sheet plastic, to hold water.”

“And what shall I be doing?”

“Well—once we’ve fixed the basin, two can’t do much more than one here, for awhile—except use the food up twice as fast. So maybe you should return to base day after tomorrow, overland. And in about a week, come back with more food. By then the ditch should be in shape for refitting, and when we’ve done that, we can both go up for a rest—take the boat, maybe even get some more salt on the way.”

She saw the logic of it and agreed. They set to work, the rest of that day and the next, restoring the catch basin. And the day following, she trekked

back to *Search* and the hut. The routines on *Search* were a day overdue, but as usual she found that all was well with its self-maintaining mechanisms.

Bored, she spent the next two days at food gathering, processing and storage—and activated part of Jay’s trapline. At twilight the second day she saw a sea devil near the defense perimeter—and was shocked to find that she actually welcomed the threat. But she tried something new—after energizing the barrier wire she brought from *Search* a narrow-beam signal lamp. She walked to safety’s edge inside the wire, pointed the lamp and flashed pulsed bursts of blue-green light at the questing beast.

The sea devil whirled, snapped at its own flank and raced away. Watching it descend the hillside, Raelle began to laugh. A time later, sitting on the ground and flashing light at nothing in particular, she wondered why that laughter was so hard to stop.

Brushing damp soil from her clothing, she stood. Aloud she said, “I can’t afford to let the place *get* me this way!”

ON THE GLOSSY FUR of the small, trapped animal, sunlight glistened. Raelle hated the creature—for its gullibility, now she had to kill it. Slaying sea devils was different—this little beast was helpless. It looked *cuddly*, like a friendly pet.

Staring into its roundeyed unwinking gaze, Raelle cursed. When she had exhausted her repertoire of blasphemies, obscenities and scatological oaths she cut the small throat, drained the blood, and skinned and gutted the animal. Hide and carcass went into separate pouches at her belt.

The sound came, and at first she

did not recognize it. The tears she still blinked from her eyes blurred her view of the thing that passed overhead. Then, somewhere beyond the ridge that rose between the two rivers, it made thunderous descent.

A SHIP! All her purposes deadlocked—she could not move. Then she slapped the bloody knife flat against her other palm. The blow stung—she shook her head and started walking, briskly, toward *Search*. She thought, *Jay must have heard it—seen it—too. He'll come here—I don't have to go tell him.* She walked faster.

ABOARD *Search* she monitored the communication bands—no one was calling, and her own calls brought no answer. Well, perhaps the ship hadn't seen the Can—hadn't been looking for so small an artifact. Maybe she'd better go meet Jay, after all—to cross either tributary, let alone both, they would need the boat.

Not now, though—this day was too near its end. Anxious, stimulated, Raelle finished her chores and went to a restless night's sleep.

NEXT MORNING, nervous with anticipation, she rose early. She forced herself to eat a normal breakfast and, aboard *Search*, to perform her routines without hurry. The ship, she reminded herself, might or might not change their plans—what if it lifted before they could reach it? As though the ship did not exist, then, she packed food for the trek and was ready to leave.

She shouldered her pack; in the emasured pace she could continue indefinitely, she began walking. She was partway around the first hill, still in sight of the hut and the far ridge,

when she heard the new sound.

She turned to look. Down the ridge and then across the river, throwing sheets of spray, came a ground-effect vehicle. For a moment she felt panic—then she shrugged and began to retrace her steps.

Leaving the river, the car climbed the slope and neared the hut. Raelle broke into a run and waved for it to stop. Whether or not she and her signal were seen, the vehicle set down short of the fenced perimeter, leaving it unbroken. Now she slowed. When she reached the wire from the other side, her breathing rate was down to normal. The car—she was familiar with the model—had seats for four but now held only a driver. As she approached he got down and walked toward her—a short, chunky man with a rolling gait, wearing bulky jacket and trousers; a visored cap shaded his eyes. As she stepped over the outer perimeter wire, only a few meters from him, he took off the cap and she could see him plainly—the dark, chubby face and the head nearly bald on top. He smiled; three front teeth were missing.

"Hello there!" His voice was husky, almost harsh. "Serro Gama at your service—off the ship *Star Flame*." He gestured toward *Search*. "What kind of toy ship is that? You come here all alone in it?"

First instinct was caution—then the thought came: *there's no harm in this man.* She stepped forward and shook his extended hand. "I'm Raelle Tremona. *Search*, there—it's a Courier Can. Carries two. My partner, Jay Pearsall, should be here soon."

"Partner, eh? Spouses, or just companions?"

"Spouses. Now then, Mr. Gama—can I give you some coffee while we wait, or a bite to eat?" Briefly she



thought of their going in the car to meet Jay. Then she visualized the route—passages the vehicle could not manage—and shook her head.

He looked at her but she said nothing. "Coffee's fine—I thank you." As they reached the hut she stood aside and let him enter first. At her gesture he sat on a stool while she made coffee.

"What's your ship doing here, Mr. Gama?" Why must she sound so casual, yet formal, in asking what she needed to know?

"*Star Flame*? Figured to refuel at the colony here, maybe get some repairs, too—but there *ain't* any colony! Dol sent me over here to take a look, see what happened. Didn't expect to find *you* here—missed your Can on the screens coming in." He squinted at her. "The colony—your know anything about it?"

*Figured to refuel*—then the ship was little better off than they. "I—maybe. Tell me—is *Star Flame* Krieger-powered?"

"Sure is—one of the first! And set out on the longest trip ever assigned. Up to then, I mean—maybe longer ones by now."

"Then I do know what happened. It's—" She paused. "It's rather complicated. Do you mind if we wait until Jay gets here, and we can go explain to your captain—and all of you—at the same time?"

He grunted. "Hope we don't have too long to wait. Dol's gonna be unhappy if I don't report right away, finding *people*."

"Doll?" Now Raelle poured coffee. "She's your captain?"

"She?" Gama laughed. "Oh, I see—but it's Dol, short for Dolman." Yes—the sound was nearer to "dawl" than "doll". "Dolman Crait. He's—uh, *acting* captain."

"First Officer? Your captain's ill, perhaps?"

Gama looked puzzled. "Like you said, it's sort of complicated. I better let Dol tell you, himself."

She had to leave it at that. To break the awkward pause she asked Gama about his own space career.

The man grinned. "It's a long one. Nearly a hundred and fifty years ago, I was born. Believe that? Well, it's true. But more than ninety of those I never lived through—I'm that far out of my time."

"What? Oh—sublight travel!"

"Sure. We went out on *Far Shot* to—it's got no name, just a number—I forget now. Two planets the right size, but neither fit to live on. Couldn't go offship without a suit—repairs, smelting fuel, all of it." He sighed. "Got back—no family left, of course—we knew that ahead of time. But here they'd gone and invented Skip Drive for us. So I stayed with space—it's not a bad life, mostly."

She looked at the man whose memories reached back six times as far as hers. "Where do you come from, originally, Mr. Gama?"

"Call me Serro. Well—born in the Amazon Valley. Father was Indian—his father caught fish with a spear. And my grandmother—I remember seeing the tattoos on her scalp, that the old women put there when she was a little girl." He shook his head. "Real primitives. All the civilization came by way of my mother—half black, half Portygee. Dad was a man grown when he came out of the jungle and started school. . . ."

"Then this isn't your native language, Serro?"

"Might's well be, by now—it's what's spoken in space, and I first shipped out when I was nineteen."

Again she tried to learn more of the current situation, but he put her off. "That's Dol's department—if he wanted me to speak for him he'd have said so." Raelle shrugged—Dolman Crait sounded a bit authoritarian.

To fill the time she told him some of her own background. After a few minutes she realized she was censoring—she'd said nothing of Drift, of alternate Earths or of *Search's* extremely high Skip Factor. She had not, in fact, mentioned that *Search* needed fuel. Briefly, she considered—then decided that if she were riding a hunch she might as well stay with it.

The wait seemed endless. Occasionally she rose and looked out along the trail, but Jay did not appear. She made more coffee and offered Gama some dried berries. After sampling a few he smiled and nodded. "Some good things on this world, then."

"Yes." Again she looked outside—and there, just topping the nearest ridge, came Jay. "He's here!" Gama started to rise but she said, "No, no—stay comfortable. I'll run out and meet him—we'll be back before you know it."

She put on a jacket and literally ran the first hundred meters or so before slowing to a fast walk. At the foot of the ridge she and Jay met—after their greeting embrace she said, "You saw the ship too?"

"Heard it—was pretty sure it landed somewhere up here." He pointed to the ground-effect car. "They're here already?"

"One man, only." Quickly, as they walked, she described the morning's experience. "And that's all I know, so far. Anything else, Serro says it's up to Dolman Crait to tell us."

"The man who's here—what's your impression of him?"

"A person out of his time, committed to space, loyal to his chief. There's a friendly feel about him."

Ahead, Gama came to the door and waved. Jay said, "Looks harmless enough." And when they reached the hut and Raelle made introductions, he smiled and shook hands.

Indoors then, Jay poured himself coffee and sat. "Now then, Mr. Gama—Serro? All right. What comes next?"

"All go back to *Star Flame*, I was hoping. Dol's gonna want to talk with you—put together what you know with what we know—help each other out, you see? Might be, figure to stay over a day or two, bring whatever you'd need for that."

Raelle and Jay looked at each other. She said to Gama, "I'm not sure our own work should wait that long. Couldn't we just visit briefly this first time, and return here today?"

Gama fidgeted, looked down and then up to them again. "I—"

"Or if Crait needs a longer conference right now," said Jay, "he could come to us. You've got the mobility—we haven't. We could move into *Search* and put him up here at the hut, if he likes."

Raelle shook her head. "That's not fitting, Jay—asking a commander to leave his ship. Let's compromise—go with Serro now but come back today. We can work out later meetings when we have time to schedule things better."

Jay nodded, and Gama looked relieved. Jay said, "I'll go to *Search* first—add the latest haul to the bin. It's hotter, Raelle, as we expected—I have it triplebagged for safety."

As he left, Gama said, "What's he talking about?"

Without thinking she evaded the question. "Some samples."

Gama smiled. "I've done a bit of that—just as helper, usually—starting with the two rocks *Far Shot* visited. Usually it's been fuel ore we're after." "We—we've checked some of that, too, of course."

Then Jay was back. "All right—I guess we can be ready in about five minutes."

WITH A SURE TOUCH Gama lifted and moved the car. It bobbed and tipped very little, less than Raelle expected. He had the folding top up but kept two side windows open; the rush of air felt pleasant. Down to the river and across, he took them, spray sheeting beside and behind—up and over the ridge, then across the second, wider river they had never seen. Now up a long, rolling slope—at the top he let the car dip and then gave it max thrust to hop a low rock ledge—and there, in the valley below, stood the ship.

"*Star Flame*," said Gama. As he glided down the hill to a landing, Raelle saw no outside activity—all crew members were either in the ship or working elsewhere.

FOLLOWING Gama aboard and upship they passed one man—an Oriental youth, hardly grown. Wideeyed he nodded to them, but said nothing. "Rit don't talk much," Gama commented. Then, "The galley, I guess—you wait there. Have some coffee—or a real drink, if you'd rather."

The galley was empty, too. Gama gestured toward coffeepot and cups, and the small bar in one corner. "Help yourselves. I'll go tell Dol—he'll be here pretty quick." And he left.

Jay said, "I think I can use the real drink. How about you?" Raelle nod-

ded. In a moment they sat holding glasses of iced spirits.

"It's awfully quiet," she said. "Where do you suppose everyone is?"

Jay shrugged. "Scouting expeditions, maybe? But you'd think that right after a landing there'd be a certain amount of checking and minor repairs going on. And you know as well as I do—that means a lot of coming and going in the galley. But here . . ."

They said no more. It was perhaps another twenty minutes before Gama returned. With him were three other men, including the young Oriental.

The tallest stepped forward. With one hand he brushed back a longish mass of curly blond hair—the other he extended to shake first Jay's hand, then Raelle's. "Dolman Crait, commanding. Serro's told me your names." He repeated these for the benefit of the other two. Then, "Arth Frenkel." A slim, redhaired man moved up to shake hands. "And Ritter Siu." The Oriental followed suit, touching hands briefly and stepping back. "Let's sit down."

Raelle guessed Crait's age, give or take a little, at thirty. He topped Jay's height and her own by several centimeters—over a broad chest and shoulders his jacket stretched tightly. He gestured to Gama. "Coffee, huh? And a drink." The older man moved to obey; the other two poured coffee for themselves. When all were seated, Crait looked from Jay to Raelle. "What ship brought you here? Serro told me about the pint-sized bucket you have over there. Some kind of scout vessel for local use?" He grinned. "He had the idea you made real trips in it—didn't you, Serro?"

Raelle touched Jay's arm; he glanced briefly to her, then said, "We can tell you about that later. I under-

stand your main problem is that you expected a colony here. Is that right?"

Crait leaned forward. So did Arth Frenkel, who said, "Do you know what's wrong? Is the listing mistaken—somebody ascribed a colony to the wrong system?"

"Not exactly," said Jay. "It's a little hard to explain, but we'll try." And between them, Jay and Raelle described the phenomena of parallel continua and of the Drift between them.

And Raelle said, "We expected a colony here, ourselves."

CRAIT LOOKED at his crewmen, then back to her. "You mean, we get back to Earth, it won't be the same one we left? How much different?"

"No way of predicting," said Jay. "The longer your hops and the higher your Skip Factor, the more change you're apt to find."

Gama chuckled. "Not a patch on what I found, I bet—coming back on *Far Shot* almost ninety years after we'd left. Don't worry, Dol—you'll manage." Then he sobered. "I forgot—there's still the other matter."

Crait glared at him, then said to Jay, "I think you'd better tell me about *your* transportation. Maybe there's some answers there."

Raelle cleared her throat. "Captain Crait—Acting Captain, I understand—we'd have a better chance of finding answers if you'd tell us your problem."

While Crait hesitated, Gama spoke. "Tell 'em, Dol—there's no hiding it." When Crait did not protest, the older man said, "Our Skip unit's busted to hell. We can make fuel, all right—got to, in fact. But when we have it, all we can do is crowd c—and eat time doing it, just like on *Far Shot*."

Raelle shook her head. "But surely

you have spare components, and the technicians—" She looked around at the four men. "Wait a minute—your crew—are you shorthanded?"

Crait's finger pointed at her. "You're getting it. We four right here—out of the original two dozen, we're all that's left."

She gasped. "*Plague?*"

"Mutiny." After a moment, she realized that the soft voice was Ritter Siu's.

She stared at Crait—he nodded, and said, "Not that it changes this situation any, but we weren't the mutineers. If we had been, we'd still be on Kagan's Trap—chewing the pretty little chartreuse flowers that won't let you stop, and burning out under two-to-one neural acceleration."

CAPTAINS name the planets they discover. Stacy Kagan, commanding *Star Flame*, was not given to whimsy or imagination—when the habitable world was spotted—it was her first—she listed it simply as Kagan's Planet. It was the survivors, Crait said, who renamed it Kagan's Trap.

At the start all went well. They landed in a pleasant, scenic environment, at a latitude approaching summer. Plenty of work to do—exploring, taking samples, finding ore and synthesizing fuel, putting *Star Flame* in top shape for the return trip—and the crew made a good working team. Fifteen men and nine women, they had settled into flexible living patterns, clearing up initial frictions during the first few weeks.

Two ecologists, exploring above timberline in the nearby mountains, found and brought back the chartreuse flowers. Crait did not know who first nibbled on a bloom. But within a week *Star Flame's* crew had

become two factions—those who had and those who had not. The flower was totally addictive.

And as Crait had intimidated, the users' reflexes were nearly twice as fast as those of normal persons.

*Star Flame* had done its work, was refurbished and almost ready for the return voyage—but nearly half the crew refused to go. More than that, they would not allow the ship to leave. Two barricaded themselves into the drive room and put the thrusters on local manual control—other addicts passed food and flowers through the emergency port. *Star Flame* stood stalemated.

After three days of fruitless talk—onesided, for the mutineers ignored commands, arguments and outright pleas—Stacy Kagan armed herself and all nonaddicted personnel. She gave a few tactical suggestions but only one firm order: "Get this ship back!"

Eight hours later, *Star Flame* left the planet.

RAELLE shook her head. "And only you four survived?"

"Six," said Crait. "On the ship, I mean—some of the petalheads got away. Eight, maybe—putting it together we accounted for only ten known dead. But no one of us saw all of it. . . ."

Jay frowned. "Then what happened to the other two?"

THEY THOUGHT the fighting done with. Five—including mutineers—died before the drive room was secured. A simultaneous attack on the ship was beaten off. Leaving guards—one each at Control, the drive room and ship's entrance—Captain Kagan took her remaining men offship to see if any of the fallen still lived.

One lay feigning injury, moving feebly. The captain bent down—before she could straighten again, she died. But no neural acceleration could free the killer from the grip of the man who fell upon her then. Crait took her aboard, *Star Flame's* one prisoner.

"NEESHA GORT," Crait said. "Beautiful woman—smart, kind, loving, sexy—all of it, until the petals. She was one of the two that first found them. But being dragged up the ramp—" He shook his head. "Not the same person any more. Her eyes—even Tony Vermont could see it, though he didn't want to."

Seeing their bewilderment he said, "Tony's the other who left Kagan's Trap with us. Poor Tony!"

Gama snorted. "Dumb sumbidge Tony, you mean. Wasn't for him . . ."

Crait made a sharp gesture. Gama said no more. "You and I hadn't been in her sept much, Serro—Tony had. She influenced him a lot—though before the petals I don't think it was on purpose. After, she almost got him to try them—and at the last, maybe she did."

ON *Star Flame* five men and one woman—and the woman, imprisoned, an implacable enemy. Yet she coaxed, she wheedled, she promised—during the next ten months she pried at the men's needs, their weaknesses. But Dolman Crait would not unlock the quarters that had become her cell.

It happened after the one-week-to-landing party. Vermont pleaded fatigue and retired early—the others drank and sang for hours more. How much later it came, the crashing shudder that threw Crait half out of his bunk, he did not know.

"I WAS STILL DRUNK, you see, and half hungover—I couldn't think. I headed for Control. Halfway there, just outside Neesha's empty cell, I found Tony—naked, and with his neck broken, it turned out. But at first I thought he might be breathing. And when I bent down to check—I think I smelled the petals. She had some hidden—we knew that—but it hadn't been worth the risk to go in and search."

His fists clenched. "In the drive room I was lucky—I slipped on oil and nearly fell—the steel bar missed me. Then her lunge brought her throat to my hand. And all the trickery, all the speed—she was accelerated, all right—none of it kept her alive. But then I saw what she'd done to our Skip unit."

He looked to Raelle. "Spare components, you said? Sure we have them—we just don't have the basic framework and circuitry to plug them into. And no data to build it from."

Jay spoke. "The crashing that woke you—that was *Star Flame* being kicked out of Skip?"

Crait nodded. Raelle said, "Why did she do it?"

"I have part of that—before I got her wind, she tried to argue. Of course I'm guessing a lot, just from a few words. Mainly she didn't want to stand trial—and without Skip we'd be so long getting to Earth, maybe she figured her crime wouldn't count by then. Especially if she seduced the lot of us first, the way she'd been trying—and by *damn* it was hard not to take her up on it. So Tony did, I expect—and then probably refused to be her accomplice, so she killed him."

He stared at his hands on the table, then looked up again. "So instead of getting here in a week, the way we'd celebrated for, it took us two years."

"All by ourselves—just the four of us."

SILENCE HELD, until Ritter Sui pushed back his chair. "Lunch—it's my turn." He went to the galley's rear and began preparing food.

"Too bad it isn't Gama's," said Crait. "He's the best of us."

"Had lots of practice, I did."

Arth Frenkel sat straight. "I'm tired of it." It was Crait he spoke to. "Just the four of us, you're always saying—and whose fault is it?"

"I did what I had to."

"Had to? I would have—"

"You'd have been dead, Arth. You can't fight, for little blue beans."

"I'd have *talked* to her. She'd done her worst, hadn't she? Why would she want to kill any more?"

"I don't know, but she sure tried."

"You say that. I think she's dead because you were afraid of her. Afraid she'd get to you, like she did with Tony."

This time silence lasted until Siu served the food and it was eaten.

RAELLE DID NOT SENSE, among the group, the tension that exchange should have produced. Finally she thought, *it's an old argument—they've said it all before*. Still she wondered—why did Dolman Crait, obviously in command, allow talk that was close to insubordination? *There is more here than we know. Watch!*

Crait pushed his tray back and turned to Gama, then waved a hand. "You're still eating, Serro—I'll get it myself." He brought the coffeepot, poured for himself and handed it along. Siu, the last in turn, took it back. Crait looked to Jay. "You've heard our troubles. Let's hear yours—beginning with that craft of yours, over there."

His voice held a demanding edge. Raelle thought, *well, we've got to tell him sooner or later*. For the fact was, even if they could improvise a consistent lie there was no advantage to it. She said, "It's called a Courier Can. It carried two people, no more—that's the limits of the life support gear. And the food storage capacity—for two, it's only about fifteen days."

Crait's brows raised. "Then what the hell good is it? Where can you get to, in that time?"

"Earth," said Jay. As Crait began protest, he added, "What's your top Skip? Under two thousand?" Crait nodded. "Well, *Search* can beat ten-sixth—one million."

After a moment, Crait laughed. "Then there's no damned *problem*, once we get the fuel synthesized. We'll just put your Skip unit into *Star Flame* and all go home to Earth in style!" Sitting, he made a half-bow. "We can carry the rest of your crate as cargo. And you yourselves—why, be our honored guests!"

It was a shame, thought Raelle, that the idea would not work.

CAREFULLY she explained, Jay filling in when Crait interrupted. The interruptions were many—naturally, the man did not *want* to believe what he heard.

But the facts would not change—Skip Factor was governed by fixed parameters. Given the power capability of any specific unit, the product of ship's mass, ship's volume and maximum Skip was a constant. Overload the unit and it would blow. Q.E.D.

Jay supplied the figures for *Search*. Crait left for Control, to put them—and those for *Star Flame*—through the computer. When he returned he was scowling. "You know what I got?"

"I think so." Jay spoke quietly.

"Skip Factor of *one*—a little less, even. Meaning, no Skip at all."

"That's about what I'd guessed."

"I'll recheck the figures you gave me—you know that."

"Sure. Believe me, Crait, I'd like to be wrong."

"I guess you would, at that. Meanwhile you're staying here, both of you. Serro, Arth—see to it. You can have the double quarters just below mine, for now. Later—well, we can discuss that after I get back from visiting your ship."

Ignoring the threatening implications of his words, Raelle said, "You're making a mistake. You don't know. *Search*—push the wrong button, you can kill yourself."

Jay stood facing Crait. From behind, Frenkel had a hand on his shoulder—Jay glanced back, shook the hand loose, stepped aside. Now no one was behind him. Crait said, "No. You don't want to get yourself hurt—and you could, easy. Listen first."

Jay moved again, circling toward Crait. "So far I don't like it. Let's hear you do better."

*He mustn't! Jay's good, but no match for Crait—even without the rest. And I can't take out more than one of them.* But before she could speak . . .

"We'd help you if we could, Crait—but we can't. And obviously you won't help us. So just let us go—pretend we don't exist. Is that too much to ask?"

Feet apart, hands out from his body and slightly extended, Crait rocked up on his toes and then back again. Before he spoke, Raelle knew his answer. "Yes, it is. What's your next best offer? Such as, what kind of help do you want?"



Quickly she said it. "None—none at all. Take us back to *Search*—you can check Jay's figures, there, and see that he told the truth. Then—Jay's right. Thanks for your hospitality but our problems are separate. Let's keep them that way."

Crait ceased bobbing and stood flat-footed. "Not quite—but I'll compromise. He stays here while you show me how to check out your little boat. After that, we'll see."

Her thoughts raced. "Who else comes along?"

"Serro? Is he all right with you?"

"No." It was Frenkel. "He's already seen this midget ship—I haven't." Crait scowled, and the redhaired man added, "You're not making any deals behind my back, Dol. No kind."

One deep breath, then Dolman Crait visibly relaxed. "It's been established that you can't threaten me."

"I don't have to. You drive a car like a turtle flies—that's my insurance."

Crait did not answer. Jay shook his head. "Raelle—I don't like this. If he chooses to go to *Search* and blow himself off the map, let him. We—"

She went to him. "Jay—" Close to his ear she spoke softly. "There's a pattern here. But I don't know what it is, yet—too many crosscurrents. It comes closest to clear in those two. If I go with them—it's not dangerous so long as the balance holds. And Gama and the boy, here—try to make friends with them?"

After a moment he nodded. She kissed him and turned to Dolman Crait. "All right—what are we waiting for?"

CRAIT SAT IN FRONT beside Frenkel, with Raelle behind. Frenkel wasn't the driver Gama was, but he got them over the ridge and off the

ledge well enough. As they approached the first river, Crait said, "When do you plan to leave?"

For a moment, she thought. "Not for another two months, maybe three."

"That's good. We'll be about that long, finding ores and synthesizing the fuel we'll need."

Now? Why not? "We can show you a good ore supply. In return for saving your time—well, if you make a little extra, we'd appreciate the chance to top off our own supply."

As though he heard the plea she had not made, he paused and looked at her. "So that's it! You're stuck here—no fuel. Interesting—I'll think about it."

"That's not true!" What to say? If he wished he could rob the fuel bin, strip them clean. "We—we plan to leave a cache. So that if another can comes here, its people won't have to do the work we've done. It's not full yet—a small donation would save our time."

The river now, and Frenkel threw more spray than Gama had done. Entering and leaving the stretch of water, the car jounced heavily. Crait asked, "What size donation? How much fuel gets your Can to Earth?"

There seemed no reason to lie—she told him. After a brief silence, he laughed. "That'd just about get *Star Flame* aloft and up to Skip-twenty. If we had Skip." He looked at his spread palm as though reading answers from it. "Those figures—the time you quoted—all that. I'm going to check, of course, but I'm convinced you both told the truth."

Over the middle ridge to the second river. Now Arth Frenkel controlled less harshly—the car transferred to water with a smoother touch. Crait said, "Your husband. I hope he's not

as possessive as he sounds."

ALL ALONG, she realized, she had been trying to ignore the obvious. Pitching her voice to calmness despite the rush of fear, she spoke with care. "Jay's a generous person, certainly. But if you're referring to *me*, you may as well forget the idea. We're Monogamists, you see—both of us, and vows sealed with death pledges." *If I have to lie, this is a good time for it. And, are there such things as death pledges?*

Leaving the second river the car bucked and swayed. Crait lurched in his seat, caught himself and stared back at her as they climbed the slope and passed between knolls, approaching Search. As they neared the wired perimeter, Frenkel showed no signs of slowing. Raelle shouted, "Stop *here!*" No response. "*Now*—you'll damage the car!" With a jar, he dropped the vehicle to ground.

Crait turned to her. "What was that all about?" He waved a hand. "Never mind—we'll get to it later. First—death pledges, you said. You mean, if one dies, the other suicides?" He shook his head, blond hair flying. "I can't believe that."

*Try to sound reasonable!* Hoping to salvage something from her impulsive statement, she said, "No, of course not. We're dedicated people, yes—but not fanatics."

"Then what *does* it mean?"

"Why—why, that so long as we're both alive we're together. Exclusively."

"Then maybe widows have some advantages over wives." Crait grinned. "I wonder if your husband's thought of that?"

Raelle gasped. Arth Frenkel said, "Space it, Dol! You've got your faults—don't I know it?—but you

won't kill, in this matter. And you know it."

Face flushed, Crait reached and buffeted Frenkel's head. "Don't tell me what I'll do!" He turned to Raelle. "You can't know what it's like! Ten months, the five of us—and *her*, there locked up. Treacherous, we knew—but oh God! I—"

"A great temptation?" *No—that was the wrong thing to say.*

He didn't appear to notice. "Then two years—just the four of us." His laugh was hideous. "Oh, we made do!"

"Some better than others, of course," said Arth Frenkel.

Crait turned on him. "It was all right for you—you were *raised* Pansexual—I never noticed you complaining. But me—I—"

Slowly, deliberately, Frenkel spoke. "What Dol wants you to know—what he has to make sure you understand—is that all through the whole trip he was never the one on the bottom. Not even once."

Crait half stood—in his face Raelle saw death—then he sat back. "Don't bait me again, Arth, for not being able to break my early conditioning. That's not a matter for pride or shame, either one. So leave it alone—or some time when I don't need you, to drive—"

*Push it!* Not quite lying, she said, "Don't give yourself ulcers, Crait. I can drive this thing."

Silent, both men stared at her. Frenkel shook his head; Crait said, "You almost—but that's not—oh, I see. Levels of meaning—I won't underestimate you again, Tremona."

She shrugged. "Then you'd better let me go in ahead of you, and deactivate some devices that can tell us apart." Without waiting for answer she got out, stepped over the wire

and entered the hut—thinking, *I hit one of his buttons—but how?*

Inside, she touched the defense switch. 'Crait would lead the way, of course—and she and Jay could handle the others. But she could not do it—she took her hand from the lethal switch, stepped to the door and called. "It's safe now."

DOLMAN CRAIT, she soon realized, was no fool. She hid nothing from him, nor tried to—it was too late for that. He looked briefly at the hut and storage facilities, and nodded. "You've been here a while. Haven't wasted your time, either." Then he gestured toward *Search*, and she led the two men inside the Can.

Crait looked around. "I'd heard of this project—it was on the boards when we left. Looks like a good design, within its limits." He searched, not asking directions, until he located the fuel bin. Looking at the indicating meter, he said, "You lied, Tremona. You'd fill this first. There isn't any charity cachê, is there?"

Hawklike, his face went taut. "This changes matters. I was looking for the easiest way to keep you here a while without getting tough—but I don't have to do a thing, do I? Because without us, you can't leave anyway."

What could she say? The truth—any lie she could think of—any of it, he could use against her. And no lie would stand up if Crait thought to quiz Jay in her absence.

She licked her lips. "Maybe—maybe not."

He looked more closely at the bin's instruments. "Hey—this stuff's hotter than it ought to be. Especially toward the top. This never came from Earth's supplies." His eyes narrowed. "And there's no way you could carry a synthesizer on here." His brows

raised; he snapped his fingers. "Of course—a ship's been here, even if colonization didn't follow. You found its synthesizer slagpile—you've been mining the tailings." He scowled. "Damned if I see how. Hot products like that—"

When she did not answer, he shrugged. "Doesn't matter—you can't mine any more unless I let you." He gestured for Frenkel to go outside—then he stepped toward her.

HER THROAT TIGHTENED—her voice came shrill. "Crait—maybe you can take me by force. But I promise you—you won't enjoy it!"

He seemed genuinely puzzled. "But I wasn't—just hug you a little, maybe. See how it feels after so long. I—what hurt would that do?"

Did he mean it? "No harm—if we were friends, if I trusted you. But how can I trust someone who denies us freedom, Jay and me? How do I know what else you want to force on me?"

"You don't understand! I don't want you *that* way—against your will. I want you to tell me, all right, Dol—here I am for you."

Unexpectedly she wanted to laugh. She knew she must not—she fought it back. "I've told you why that's impossible. I'm sorry."

"Sorry we can't be lovers? But maybe—"

"No! I'm sorry you didn't find someone here who could." She could afford him no semblance of encouragement—she knew that much. "Now then—is there any more you want to learn, here?"

He wasn't ready to give it up, she knew. But he said, "Your log—let's have a look at it."

Well, why not? At the control console she punched the access codes.

On the screen the entries appeared, rolling upward at a moderate reading speed. Until it was done, Crait was silent—then he said, “All that way—out and back and out again—in so little time!” He shook his head.

“We pay for it, Crait. Look what happened *this time*.” She wanted to get back to Jay. She turned the controls again to standby and moved toward the exit. As she expected, he took a last look around and followed. Over her shoulder she said, “I’m beginning to get hungry. Whose turn is it to fix dinner?”

“Maybe yours.”

“Fair enough. Someone will have to show me where things are.”

“I think someone’s going to have to show you *how* things are.” She looked at him, but until they were in the car he did not speak. Then he said, “Let’s go, Arth.” A moment later the car moved out.

**T**HIS TIME Crait sat behind with Raelle. When he spoke it was softly, so that Frenkel could not hear. “I’ve been thinking. You’re going to do what we want, all right—because it makes sense for everybody. The only question is how to change your mind.”

She had to derail this line of thought. “Crait—only friends have any chance of persuading me of anything. And so long as you think as you do, you’re my enemy.”

Onto the river—over the sound of spray he spoke close to her ear. “Because I want you? And if I say I don’t, I lose, too. Damned either way—is that it?”

She had had enough—as the car left water to climb the ridge, she said, “Yes, it is! I’m not available on *any* terms—get that through your head. Then we can be friends or not, as you

choose. Before all this came up, I liked you well enough.”

She started to touch his shoulder, then drew her hand back. “Dolman—you’re a grown man, not a lovesick boy. And a *young* man—still young when you reach Earth, with many good years ahead. Why can’t you wait for that—instead of trying to wreck the lives of people who’ve never harmed you?”

She spoke louder then she intended—Arth Frenkel glanced back and said, “Yeh, Dol—what makes *your* macho so important?”

Crait glared at the man’s back. “You’d share willingly enough, if she agreed.”

“Agreed, yes—coerced, no. If you do find a handle on these people, don’t expect me to help you pump it.”

Water again—Frenkel said something more but Raelle did not hear his words. Crait did, apparently—he shouted, “I don’t care what *any* of you do or don’t do. I was arguing for all of us—now I’ll just work it out for *me*! And while I’m doing that, you’ll take my orders.”

Frenkel pulled the car up onto land and slowed, barely hovering. “Concerning the ship, I take orders. When it comes to personal problems I’m not your soldier. If you don’t like that—well, one of us can jump out and walk the rest of the way, and I guess it’s me.”

Redfaced, Crait drummed clenched fists on his knees. “Say it all the way, Arth. You refuse to act with me on this?” Frenkel nodded. “But you won’t act against me, either?”

The man hesitated. Then, “Not on the ship, I won’t. That’s as far as I’ll promise.”

Crait laughed. “Then get us the hell back to *Star Flame*.”

FOR THE REST of the ride, the landing, and while walking to the ship, Raelle tried without success to think of a course of action. Aboard, again they went to the galley. Serro Gama was there, no one else.

She walked to face him. "Where's Jay?"

Smiling, Gama spread his hands. "Where Dol said—the quarters. He's fine—we had a good talk."

"I want to see him." This to Crait.

"Later. Right now, I'm going to see him. You stay here." Crait left—Raelle made to follow but Gama spoke.

"Dol said you stay. 'Don't—I don't want to have to stop you.' She looked at him—his expression showed concern.

Frenkel said, "Dol won't hurt your man. He'll *lean* a lot—arguments, dickers, maybe threats. D'you think that'll work?"

What kind of threats? To Jay's life, or hers? She shook her head—there was no way of knowing—and said only, "No. It won't."

Gama began preparing dinner—apparently Crait's suggestion that Raelle do so had been in jest. He said, "Dol leans pretty good."

"So does Jay." *If only we could talk together!*

She went to the bar, made a drink and sat sipping it, deep in thought. What were the *limits* of this situation—how far would Crait go, or Jay—or she herself? She considered—in a similar predicament, two planets ago, unhesitatingly she had told Reyaz Turco that he and she would both die at her hand if he separated her from Jay. Today she had made no such threats—why not?

The answer startled her—the threat would have been empty, Separation by Drift she would *not* tolerate—but

no circumstance, no matter how hateful or humiliating, that left her and Jay together afterward, was worth dying for. She wondered what Jay would think of her conclusions.

Crait's return startled her. "Well there, dutiful wife—I've just had a nice talk with Jay." He smiled. "It's all set—he says you should cooperate."

*What—?* Blindly she shook her head. "I don't believe you! How—what did you do to him?"

"Nothing. He saw reason—that's all. So now—"

"No! Let me see him."

"Sure. All you want—afterward."

Glass and all, she threw her drink. He knocked it aside and wiped at the liquid on his face and jacket. "Damn—!" He started for her—she stepped back and to the side, putting the table between them. "What the hell—"

She wrenched a chair loose from its deck fastenings, swung it at him. He ducked back—she missed—on her backswing she threw it. His warding arm passed between the rungs—a leg caught him in the face. He staggered back and fell.

A quick look—Gama gestured but Arth Frenke, shaking his head, held the older man. Raelle vaulted the table—as she came down, one foot caught the juncture of Crait's neck and shoulder. She stumbled, caught her balance on the deck, turned in time to kick a knife from his hand. She ran and picked up the weapon—now Frenkel freed Gama and both came toward her.

"No! I won't hurt him if he leaves me alone!" The two men stopped—as Crait came to his feet Raelle turned and ran.

*The quarters below his*, Crait had said—well, he'd be occupying the

captain's cabin, surely. Down two levels she went, hearing Crait behind her. She turned a corner—and before the door she wanted stood Ritter Siu. Slowly he dropped into a fighting crouch.

She paused. "All I want is to talk with my husband. Don't get yourself cut up trying to stop me—it's not your argument. And I'm good with this thing." *I wish I were!*—but the young man straightened, gave a slight bow and moved aside.

She opened the door. "*Jay!*"

**T**HE DOOR also bolted from inside. Once that was done she dropped the knife and went to him. Kissing, embracing, both mumbled words that meant little—and yet, a lot. Finally she pulled back. "You *didn't* say I should go to bed with Crait—did you?"

Someone—probably Dolman Crait—pounded on the door. It's thickness muffled his shouts, made them unintelligible. Jay looked at her. "No—it was the other way round—he said you already had." She shook her head; he continued, "Said he'd told you I wouldn't get fed unless you gave in, so you did. Asked me if I blamed you—and of course I couldn't. But—" He grinned. "The way you came in here—the knife and all, and somebody out there hammering the door pretty good—it strikes me he lied."

She nodded. "If he'd told me that, he would have won, Jay. What he did tell me—well, I said that already. And when I asked to see you—" She made a sour grimace. "—he said, *afterward*. Then I—I think I went a little crazy, Jay."

He squeezed her shoulders. "Sometimes that's the only thing that makes sense." The pounding had stopped,

and the shouts; Jay looked to the door. "Sooner or later we have to talk to him. Is he armed?"

"I don't know. I didn't think he was, before, until he brought the knife out."

"That's *his* knife? Well—" Jay moved to pick it up. "You want it again?"

"No, Jay—you've had more training. A gun, now—but I don't suppose there's one handy."

"No. Well, here goes." He rapped on the door and shouted, "Parley?" When an answer came in kind, he threw the bolt and opened the door. Crait stood there, his men grouped beside him. Jay said, "This isn't a fight, now or ever, unless you insist. We'd rather go up with you and have somethint to eat. And talk."

"What's to talk about?" Explosively, Crait said it.

"You gave me plenty of time to think, in here. I didn't spend all of it worrying about our personal problems."

"What—" Receiving no answer, Crait moved aside. Jay and Raelle came out into the corridor. As one they turned and led the way toward the galley, their backs unprotected.

*Ah, Jay! I knew you'd realize this is the way to do it.*

**BEFORE DINNER** they had wine. For his guests Crait deigned to pour—the others served themselves. The big man fidgeted but seemed unwilling to open conversation—Jay, in contrast, was quiet and appeared calm. As they ate, Raelle wished she had thought to ask him, while she could, what his trump card was.

Finally Crait could hold back no longer. "All right—so you two made a fool of me—and I guess I helped, some. And three to one my crew votes I have to take it. I suppose I

owe you the meal—but then I'd like nothing better than to send you back to your pocket-sized ship and see the last of you. Still, though—you say you did some thinking, Pearsall? What about—that means anything to me?"

"Skip Drive." That was all—Jay waited.

"So? We don't have one—you know that."

"The four of you." Jay waved his wineglass from one to another, then sipped from it. "What are your individual skills here?"

"What difference?" said Crait. "Oh, well—I was navigator—doubled in drive tuning. Skip and normal. Serro here—he's done a little of everything, I think."

Gama chuckled. "Yeah—everything a little, nothing real good. Just enough to keep going on, that's me."

Frenkel was an apprentice pilot—he knew, also, how to maintain sensors and viewscreen indicators. And Siu dealt with telemetry and control circuits. "So what does that tell you, Pearsall?"

Jay smiled. "That between the four of you, with our help, you can have yourselves a working Skip unit."

CRAIT didn't convince easily. "There's a trick here."

"No trick." And as Jay told it, Raelle wondered why she hadn't seen the answer herself. Of the framework and circuitry Neesha Gort had battered and melted to destruction, nothing was *quantitatively* critical so long as it was heavy enough to carry the power load. *Star Flame's* circuit diagrams were gone, also—but the Skip unit on *Search* was basically similar, though of course simplified. *Search* carried no diagrams—Jay would trace the paths and draw his own, setting load figures by transpos-

ing computer-derived values.

Crait had materials for framework, conduits, shielding—he had spare connectors as well as components. He simply didn't know what to do with them—Jay did, or soon would. And whereas Crait was short of wire for such extensive rebuilding, Jay and Raelle had left most of the large coil at the beach—it would suffice.

"Yeah—so what do you want in return? A ride home?"

"Yes—but on *Search*. We want fuel—now, first, before anything else. The way it is, you'll have to trust us."

Crait, Raelle saw, was thinking it over. Finally he nodded. "You'll stay until the unit checks out on test?"

"Of course," she said.

And Jay added, "We wouldn't leave right away, even if we could. There's some work of our own that we have to do first."

"Then it's a deal."

THE NEXT DAY, after Gama drove them back to base Jay brought up the other project he had in mind. "If we'd had a way to store enough food without spoilage, we could have taken the slow route to Waterfall or Mossback—right?"

"Sure, Jay. But we don't have that—and now we won't need it."

He grinned. "Maybe we won't—but I want it anyway. The lower our Skip, the less Drift. And as I told Crait, I had lots of time to think—to keep my mind busy so I wouldn't worry about you when I couldn't help."

Her eyes narrowed. "If you don't tell me—"

Again, the answer was simple. "If we can't afford power refrigeration, what's wrong with *space* refrigeration?" *Star Flame* could spare the necessary material to wall off and insulate a sufficient volume, provide



shelving and spacetight doors—including a remotely controlled outside valve.

"Of course," he said, "we won't load our space locker from the cellars, until we're ready to leave."

**T**HE REPAIRS on *Star Flame* went well—until it came time to interconnect Skip unit and thrusters. "It won't work!" Crait shouted. "It can't—the leads don't match—your gadget's one short."

Jay hadn't checked the ship's normal drive. Why should he?—it was in good order. Raelle agreed—but Crait was angry.

Now Jay studied both units, and said, "Crait—do you have a good electronics junkbox? I need to build a phase-splitting circuit."

Crait took him to a cabinet in the supply compartment, opened it. "Will this do?" After a quick look, Jay nodded. "So what's wrong?"

"Nothing much. On the Cans, handling less power, things don't have to be so efficient. Your interface is three-phase—ours is single. Don't worry about it."

"If you say so."

**A FEW DAYS LATER**, *Star Flame's* preparations needed no more outside help. The rebuilt Skip unit tested perfectly—and *Search* was primed for liftoff the next morning. Inside the hut—now almost empty—Raelle looked around, suddenly realizing she would miss this shelter they had built.

To her left the screen beeped—the one Crait had provided for fast communications. She turned it on and Gama grinned at her.

"Hey—the last night, this is! We like to have a party—you agree? We bring the food and stuff. I'm the cook.

All right?"

"Why—" Jay was aboard *Search*, but she was sure he wouldn't mind—working together had gradually built trust. "Yes, of course—it's a fine idea. When we hear you come in—we'll have the floodlights on—we'll cut the perimeter alarm. Wait until one of us comes out and waves, before you cross the wire."

"Sure—same as always. Got you." The screen dimmed. She looked outside. Twilight was nearly done—she put the outside lights on, called Jay and confirmed his approval. Not long afterward he joined her, and after a short wait they heard the car approach and come to ground. Raelle opened the door and saw the four men getting out. Then she looked more closely.

Sea devils charging! Almost upon them—but there was time!

**SHE SHOUTED.** "Three seconds! Then jump the wire. Do you hear?" She ran inside, cut the defense circuit, counted three more and reactivated it. Grabbing up a harpoon she ran out again—and heard Jay follow.

One man was down—humped over the wire and entangled with a sea devil, both charring in the blue lightning. Inside, one of the beasts savaged another man, tearing at a leg while the victim screamed. She ignored the other sea devil that had got in, and ran to help. She slashed at the attacker's eye—the beast opened its jaws and swung its head toward her—she jammed her harpoon into the gaping maw. No tree was handy—she ran to one side and jerked the line to turn the creature. She almost fell, but recovered and made to repeat the maneuver. Someone passed her and jumped—locking legs around the sea devil's neck, then reaching a knife to

(cont. on page 91)

*Christopher Anvil, whose stories appeared here frequently in the early 1970's, makes his return with a story about a planet overwhelmed by pets and one man who meant to beat the—*

# ODDS

## CHRISTOPHER ANVIL

Illustrated by JOE STATON

**S**TATION MANAGER Clyde Burgess lowered the sprayer, and resisted the increasingly urgent impulse to breathe. Through the misted lenses of his protective suit, he glanced intently around at the nearly empty racks, lifts, and conveyers of Interstellarcomcorp's Vitalia Depot Number One. Shining brightly in through the large high windows of the warehouse, the morning sun lit up countless squadrons of the intermingled wasps, flies, vrills, grates, snurks, hornets, gnats, shothole beetles and other pests, that drifted and darted through rolling clouds of this latest insecticide.

Burgess looked around at Lew Cassetti, his weirdly masked and suited assistant manager. Cassetti was peering up over a sprayer at the flying, crawling, and hovering pests visible against the ceiling lights.

Burgess tapped Cassetti on the shoulder, and jerked his head toward the door.

Cassetti nodded, and followed Burgess out through the tendrils of vine reaching across the side doorway. Out here, the morning breeze swayed the weeds that filled the vehicle park, and ruffled the leaves of the ivy thickly covering the dozers, gravewielders, trenchers, and the rest of

the shotholed wreckage of the planet's one large shipment of heavy equipment. The two men tore off caps and face-masks, faced into the breeze, and sniffed lightly.

Noticing none of the head-spinning, sight-graying, hammering-headache sweetness of this latest bug-killer, Burgess breathed deeply. As he breathed, he kept his nostrils dilated, his lips close together, and his tongue warped upward in his mouth, so that none of the innumerable gnats would find clear passage through his mouth down into his lungs.

Beside him, Cassetti stripped off the rest of the protective outer suit, pulled off his sweatshirt, grabbed one of the two buckets nearby, and dipped into a large gray-spotted tub of soapy water. As Burgess, who had gone first into the warehouse, satisfied his need for air, Cassetti scrubbed his hands, face, neck, arms and upper body, then groped blindly for a folded towel by the tub.

Burgess, at last breathing normally, eyes squinted against the nearly level rays of the sun, peeled off the rest of the protective clothing, tossed his sweatshirt near the tub, grabbed the remaining bucket and dipped into the tub.

"Phew," said Cassetti. "Watch out for the soap. It smells like a palace of love, but it stings like acid."

Burgess had just gotten a little of the burning suds in his eyes. Around his head, he could hear a gathering buzz and whine.

"Genuine PDA stuff. It stings *us*, and attracts the bugs."

There was a flapping sound as Cassetti's groping hand found and unfolded a towel. "What did you think of their newest bug-poison?"

Burgess groped for his towel, located the end of the cloth, and used a corner to wipe the suds from his eyes.

"What did *I* think? As a war gas, maybe it would work. It sure didn't bother any bugs that I could see."

"It reminds me of that other super-kill."

"The green oil?"

"The purple crystals."

Burgess grunted as if he had been hit, and methodically unfolded the towel. He still couldn't get his eyes open, and he felt the towel cautiously before using it, since there was no telling what might have crawled inside for a little nap.

Cassetti was saying, "I thought my lungs would burst in there. You'd think Planetary Development would realize what would happen on *this* planet to their damned breathing apparatus with its copper fittings. You remember how they sent the crystals?"

"Who could forget it?"

Burgess' memory provided him with a picture of a large black plastic drum with copper plug and pour spout, over which he and the planet's newly arrived branch chemical plant supervisor were bent. On the plastic drum was stuck a big label with skull and crossbones at each corner:



CAUTION  
EXTREME  
DANGER!

*Contents poison to all  
earth-type life-forms!*

Avoid contact with skin!  
Use in well ventilated area!  
*Classified insecticide!*  
Destroy contaminated clothing!  
*Official use only!*  
May be absorbed through skin!  
Wash repeatedly after use!  
*In case of contact, seek medi-  
cal aid at once!*  
POISON!  
EXTREME  
DANGER!

Out the shot-holed plug and down across the label crawled a column of small black things like ten-legged ants. The first four legs of each ant were possessively clutching a flat plate-like violet-black crystal.

Looking closer, the two men discovered another column coming empty-clawed up the back of the drum and going inside through another shot-hole.

The branch plant supervisor straightened up, looking dazed.

"I can't believe my eyes!"

Burgess shrugged.

"It's just standard for the planet. The last time, PDA sent us a green oil we were supposed to set out in pans. It was supposed to be harmless to us, but the mere vapor would kill the bugs right in the air. Just take a look."

Burgess pointed to a shelf under a nearby window, where bugs alighted on the edge of a wide glass dish, then climbed over each other to swim around in a murky green liquid. Before the eyes of the two men, the bugs clambered out the other side of

the dish, to vibrate their wings and preen themselves before taking off.

Burgess said, "We've got a little problem here. You see it. I see it. Everyone on the planet sees it. But Planetary Development still doesn't get it. The problem is, the so-called 'insectoids' on this planet are different."

"Different," said the newly arrived manager, his eyes wide and his voice little more than a croak, "in degree only. All insects and insectoids are derived from the same basic parent stock, spread through space in molecuspore form by radiation pressure." He said this as he might have recited a magic formula to ward off evil spirits.

"M'm," said Murgess, looking at the bugs swimming in the insecticide. "Wait till you've been here a little longer."

The flapping noise as Cassetti reversed the towel came dimly to Burgess. An instant later, Cassetti yelled.

Burgess' eyes were still shut, and he was just starting to dry his face and neck. The yell, for an instant, paralyzed him but his mind moved fast to narrow the possibilities:

Grates, mosquitos, snurks, and gnats wouldn't give cause for a yell like that.

The quality of the sound was somehow wrong for wasps, green-faced hornets, and redstings.

There had been no clack, rattle, or indignant chatter, so it wasn't a prospector bug.

That left scorpion ants and vrills.

If there were scorpion ants around, considering that Cassetti was only eight to ten feet away, Burgess could count on ants all over the ground, and climbing off the weeds, any second now:

Burgess was already jogging in place, hastily wiping off the soap while his feet mashed down the closest of the weeds and vines, and then Cassetti began to swear lividly, and Burgess, relieved, stopped jogging. It must have been a vrill. Scorpion ants produced the same kind of yell, but there was no leisure afterward for swearing.

Burgess could now get his eyes open. He momentarily scattered a cloud of gnats with a swipe of the towel, bent over, picked up his sweat-shirt, examined it carefully, and shook loose a pale-green lacy-winged grate.

Cassetti exhaled with a hiss.

"That damned vrill must have delivered twenty thousand volts! How do they *do* it?"

This was one of those questions normally answered only a grunt or a murmur. Burgess grunted sympathetically, pulled on his shirt, and heard the dull clatter of the customer bell.

Cassetti went on acidly, "Of course, vrills *can't* do it. PDA said so. 'Insects are no problem on this planet.' —You though with the water?"

"Yes."

They emptied the pails and the tub, then carried the tub, with the pails inside, through shoulder-high weeds to the shotholed cement walk that ran along beside the shotholed concrete foundation of the warehouse. From under the clapboards of the warehouse, streams of sawdust and bits of wood filtered down, to accumulate in piles along the base of the building.

As Burgess waved off gnats, mosquitos, and grates, he once again asked himself how he had gotten into this spot. —Why had he picked *this* planet to settle on?

For a moment, his thoughts went back to the intensely realistic coloni-

zation simulator in Space Center XII, where he had breathed the air, felt the gravity, seen the pleasant blue-green sweep of forest, lakes, and plains, enjoyed the warmth of a brilliant sun by day, and the pleasant moonlight by night, while a quiet voice told of a "remarkable similarity to the planet Earth . . . Vitalia is the third planet of a Sol-type sun. It has one moon, which is similar in mass, density, and orbit to Luna . . . The planet's flora is markedly Earth-type . . . Fauna is also analogous to that of Earth, though oddly lacking in certain species. There are no insect-eating birds, while the insects themselves are represented by a thin and sickly population; a few of the species, however, are quite exotic, and might be troublesome if they existed in larger numbers . . . The soil is characterized by great fretility . . . Mineral deposits, however, are anomalous. Save for vast quantities of petroleum, the planet shows few of the usual concentrated ore deposits . . . a surprisingly homogeneous distribution of many elements is to be found over the planet's surface . . . A curious feature, at first believed to indicate the past presence of a sentient technologically skilled race, but which has since been proved statistically insignificant, is the occurrence of 'glass mines,' containing huge quantities of both regular and irregular shapes indistinguishable from plates and masses of manufactured glass. No bodily remains, or other indications of a sentient race, have been found, however . . . Although uranium and other ordinary fission and fusion source materials are rare, the abundant petroleum provides an alternative source of energy, and the planet, situated near a junction of major trade and communications routes, is now being opened

both to colonization and to commercial and industrial share-development . . . ”

The loud ping-*thud* of a shothole beetle striking the metal tub snapped Burgess back to the present.

zzzzZZZ!

There was a second ping-*thud*. Then they passed the end of the warehouse, and walked slowly and carefully, in order to attract no undue attention from the green-faced hornets inhabiting the huge papery gray nest that bulged out from under the eaves.

They put the tub and pails in the equipment shed, and glanced, frowning, at the motionless gray bumps of the two hard-shelled shothole beetles on the tub amongst the smaller gray bumps of the compound used to plug previous shotholes. It was not impossible to get the shothole beetles loose. It was just extremely hard—and likely to involve a spattering with the acids the beetles used to dissolve the metal. They shrugged, shut the equipment shed door, and started for the office, some fifty feet away. This building was topped by a huge sign:

—VITALIA—  
PLANETARY DEPOT ONE  
INTERSTELLARCOMCORP  
SHIP-RECEIVE-STORE  
OFFICE BELOW

Vines, running wild because of personnel cuts and Burgess' and Cassetti's endless struggle with bugs, twined up this sign, and their tendrils groped for the sky. This visible evidence of neglect usually smote Burgess' conscience, but at the moment he scarcely noticed it. His attention was riveted on a dust-covered motor-scooter leaned against the side of the loading deck beside the office. The rear of this scooter bore a sign:

RAPID  
COURIER  
CORP.

Cassetti said acidly, “Bad news.”

“In person. You missed the last visit.”

“What he *brought* was bad enough. What else did he achieve?”

“He rammed that nest of wood ants at the edge of the loading deck, and there were five thousand ants roaming loose in the office. In a way, that beat the time before, when he spun up a fistful of gravel, peppered that nest of redstings, and was gone when the redstings came out to see who did it.”

Burgess and Cassetti had stopped, and now hung back, hoping to avoid any lengthy meeting. They waved their hands and stayed out in the open as the desire to escape the countless bugs was outweighed by the repulsion of the courier's personality.

Burgess glanced at the scooter.

“How does he keep that thing running?”

“Cheap construction,” said Cassetti. “I looked it over one time—he was in the office. They used steel or plastic tubing instead of copper, and pot metal instead of brass or bronze. Shothole beetle don't seem to bother much with iron or steel unless there's a little zinc on it—that is, if they've got better stuff to eat.” He glanced around the lot at the mounds of fluttering ivy leaves. From time to time, they could hear the “ZZZzzzz” of a departing shothole beetle, and the “zzzzzzzzZZ—ping-*thud*!” of arriving shothole beetles.

Burgess nodded. “And he has only short lengths of tubing to replace. You know, we ought to be able to make equipment that would at least last a little longer.”

"Yeah, but how do we make the refineries last? You remember, the idea was to start with fuel oil, then gradually switch over to solar and nuclear power, and meanwhile import manufactured goods in exchange for petroleum-based chemicals. But with bugs that eat metal and take baths in insecticide—"

"I know," said Burgess. "—Watch it. Here he comes."

There was a tinny rattle as the office door came open, and a cord yanked at the shotholed makeshift bell. Then a heavily swatched figure bolted down the steps, yelled "*Messages!*" jumped on the scooter, and gave the starter pedal half-a-dozen sharp kicks.

Burgess wet a finger and held it up. Cassetti looked around searchingly.

Burgess said, "Wind will take the smoke back to the warehouse."

"I can't see anything he can hit. —Except possibly that sign post."

"Let's get inside. That stink of gas and dissolved bug-juice . . ."

A cloud of grey-black smoke filled with incandescent streaks and spots poured out the scooter's tailpipe.

BBB-bb-BBBbbroooooom!

The scooter jolted forward, slowed jerkily, speeded up, then moved so erratically the driver for a moment was over the handlebars. Then the engine suddenly ran evenly again, and the scooter shot ahead, to bang a tall vine-entwined wooden post bearing a sign completely hidden under ivy leaves. The post and its overgrown sign, looming above clouds of billowing black smoke, reeled back, jerkily tilted forward, and then burst in the middle. The upper part toppled in a haze of white powder, carpenter bugs, flourdust beetles, and sawdust. From amongst the leaves of the ivy, there spun out a thing like a small

grey basketball done up in unraveling tissue paper.

Burgess grunted. "A nest of red-stings! Come on!"

He and Cassetti shot up the steps, shut the door tightly behind them, and stared out the window as the nest hit the ground, and exploded in red and yellow specks.

In the office, for a moment, they could imagine that they heard in the background the smooth whir, the click, and the soft deferent buzz of the scheduling computer, the warehouse indexer, the office communicator, and the other conveniences they'd once been used to. Then the remembered sounds degenerated into the usual noises of flying insects, and wood ants and carpenter bugs at work in their tunnels.

Burgess exhaled, and turned around.

On the sievelike, previously chromed counter that had separated the public from the mysteries of scientific transport, storage, and sub-space communication, lay a small stack of papers and envelopes, topped by a yellow slip giving the courier's name, the items delivered, and the time of delivery.

Behind them, as they glanced at the pile of messages, the furious red-stings rattled against the windows, then ranged all over the vehicle park, looking for something to sting.

Burgess murmured, "Close."

Cassetti nodded, then they turned back to the messages.

"The last batch," said Cassetti, "had a kindly letter to the effect that she and I wouldn't have made out together, and I should wish her luck with the other guy, along with a mess of service cancellations, customer complaints, price rises, and other kicks in the head. I've got a hunch



this is the same."

"Might as well get it over with."

"Watch the ants."

Burgess glanced around. Emerging from a fresh hole in the floor by a chair in the far corner was a black column six or eight ants wide, winding its way across the floor to disappear under the counter. Here and there over the floor, and up and down the walls and across the exposed underside of the roof, could be seen a further scattering of the hurrying pests.

Cassetti nodded at the chair near the hole. "That's where he sits down to check the messages and make out the time-slips. He always gets up like he was going into orbit."

"Hopefully, he took a bootful along with him."

Burgess whacked the messages on the counter to knock any grates or paper weevils loose, handed half to Cassetti, and they walked over to a raised wooden platform whose eight stubby legs rested in eight large glass dishes filled with water. On this platform was a wooden table with a plain wooden chair at each end. Burgess sat down at his end, and Cassetti passed over a folded paper:

—NOTICE—

PURSUANT TO CONTRACT  
PROVISIONS RAPID COUR-  
IER CORP HEREBY SERVES  
NOTICE TO ALL CUSTOM-  
ERS OF TERMINATION OF  
SERVICE EFFECTIVE  
TWENTY-ONE (21) DAYS  
FOLLOWING DELIVERY OF  
THIS NOTICE.

—NOTICE—

Burgess exhaled with a hiss, and tore open an envelope printed "Vitalia Teletran, Inc." He read:

Dear Customer—

Owing to conditions beyond our control; we have found it impossible to give you the kind of service we know you have every right to insist upon.

We regret the necessity to close down our facility on this planet, but are compelled by circumstances beyond our control to terminate all our remaining surface transmission services at once. For off-planet transmissions, we will endeavor to continue at least partial service, where possible, for a period of thirty days from date.

We advise customers with urgent messages to transmit them as soon as possible, as our supply of spare parts is severely limited, and insectization of this facility is proceeding rapidly.

Faithfully yours,

G. Bernhardt

Branch Manager

The next letter was headed "Bank of Vitalia," and read:

Dear Customer—

Due to severe insect infestation, our computer records and our printed records have been seriously compromised. Due, however, to a progressive falling off in demand for banking services, we have been able to successfully convert to a system based on leather sacks and stainless steel tokens. Continuing deterioration of the building itself, however, coupled with a large nest of redstings over the door, renders it likely that we will be unable to continue our services.

We, therefore, in accordance with the appropriate provisions of the Banking Code, enclose herewith either a bank check or a debt notice, depending on the overall state of your accounts with us. Anyone wishing to clear up debt or convert a check to Standard Currency should come to

our Temporary Offices at 97 Vitalia Street.

We wish to point out, however, to any customer who wishes to cash our check, that these Official Checks are good indefinitely, may be cashed, with proper identification, at any correspondent bank on any planet or in any Space Center, and are printed on special locally fabricated insect-repellent paper incorporating ground-up fibers of Vitalian swamp oak. Grubs, shot-hole beetles, slugs, weavils, grates, and paper wasps have not been known to damage these Official Checks. This is not true of the paper form of Standard Currency.

Very truly yours,  
P. Willard Bayne  
Vice-President

Cassetti tossed over an envelope.

"We got two of this."

Burgess absently folded the Bank of Vitalia check into his wallet, and tore open the envelope Cassetti had tossed across:

"Dear Friend:

"It is with real regret that we inform you that owing to conditions beyond our control, we are withdrawing our Branch Plant on the planet Vitalia.

"Owing to loss of records, we are unable to write personally to our customers, but wish to thank those of you whose loyalty—"

Burgess ripped open the next message:

INTERSTELLARCOMCORP

Employee Memo

Due to further declining demand, our facility on Vitalia remains unprofitable.

Computer projections mandate either a fifty percent cut in personnel or a fifty percent

wage reduction.

In accord with the spirit of our Employee Relations Program, we will be guided in our choice by your input as regards your preference as to these alternatives.

Please mark the enclosed Employee Input Ballot and return it promptly.

—C. D. Mashmaker  
Personnel

Burgess exhaled, killed a mosquito, waved away some gnats, and glanced out the front window. Between tendrils closing in from all sides, he had a view across two wheel tracks to the other side of Vitalia Street. Over there were the vine-covered local offices of Sampson, Hodge, Brown, Luce, and de Pugh—Stocks, Bonds, Mutual Funds, Options, Lotteries, & Planetary Wagers and Hedges.

After staring for a moment at what must be an even worse place to work than where he was, Burgess tore open the last envelope:

Dear Sirs:

Three months ago, I ordered five (5) Black Marvel pullets and two (2) Black Marvel cockerels from the Farmers' Supply Co-Op at Space Center Twelve.

I have received acknowledgment of my order, and the shipment should be in this week. On account of the notorious conditions at your warehouse, and the way every big outfit on this planet is running for cover, I think I should let you know that I do want this shipment. I will pay the shipping charge in cash money, and if you mishandle this shipment, I will take the loss of time and work out of your skin. I don't mean any offense, and you may not be like the bulk of the lackwits and

*wingless grates who populate Vitalia Center, but I mean what I say.*

*If these birds get in ahead of time, just give them water and keep the bug-killer away from the birds. It won't kill the bugs, and it might kill the birds.*

*Sincerely yours,  
Louisa L. Parnell*

Burgess sat back blankly, then read the letter over again. He glanced up.

"Lew."

"Cassetti looked up.

"What?"

"What is a 'Black Marvel pullet'?"

"A what?"

Burgess passed over the letter.

Cassetti read it, and sat back. Finally he shook his head.

"I seem to remember an order to this Co-Op she mentions. I think the order went out by s-gram from our supply ship. I noticed it, because s-grams are a good buy, but we get hardly any s-gram business. —But that's all I know about it."

Burgess shook his head.

"A mere individual wrote that letter. But it's the only thing I've read that doesn't say, one way or another, 'We're licked.'"

"Take a look at *this* batch."

"I'll trade you."

Burgess sat back, and glanced over what Cassetti passed him. He found a cancelled shipment order, a complaint blaming Burgess and Cassetti personally for insect damage, a notice to Cassetti from Transpatroncorp "to hereby inform you that Transpatroncorp no longer has a future requirement for Electronic Technicians Grades VI through XII on the planet Vitalia," and a wedding announcement originally sent on a chaste white card, transmitted as a message, and reproduced on flimsy yellow message

paper.

Across the table, Cassetti groaned.

"Here's one I missed."

Burgess took the sheet of paper, and flattened it on the table:

*Evaluations Section -*

*Sector H. Q.*

*Planetary Development Authority*

*Space Center XII*

*to Mr. Clyde Burgess*

*Station Manager*

*Interstellarcomcorp*

*Planetary Depot One.*

*Vitalia Center*

*Vitalia (Novo Sol III)*

*Sector XII*

*Sir: Your lengthy communication regarding insect infestation, insect characteristics and qualities, insect habits, and communal insect clusters (which you refer to as "bug cities") has been received at this facility and forwarded to me by the Chief, Clerical Staff, HQPDASXII.*

*As your communication refers to no T-Rating or Equivalency Grade Rating, I assume that you are non-graded: Etymology T(0)EQ(0).*

*Specialty communications from non-graded personnel are accorded the Status Rating of zero at this facility. Zero-Status communications are not read by the addressee, and are not recorded or filed for future reference. They are routinely scanned by Evaluations Section prior to discard.*

*In future, refrain from addressing improper personal communications to Planetary Development Authority HQ S XII personnel.*

*Any communication regarding specialized material which originates with non-rated personnel is improper, as it poses the danger of entry to our data files of non-screened materials.*

*The name of any person who directs*

*improper communications to this organization is routinely noted, and future communications of whatever character are routinely referred to Evaluations Section.*

*The fact that your communication contained a threat against the personnel of this Headquarters facility has been noted, and appropriate details forwarded to the Space Police and other proper authorities, including your present employer. —S. Hamway, Schrank, Admin T (XI), Etymology EC(2), Office Executive.*

Burgess sat back, and silently re-read the message. He looked up, frowning.

"What is an equivalency grade of two worth?"

Cassetti picked up a short piece of stick, and with a vicious blow flattened a vrill that had just landed on the table. With a growl of satisfaction, he pushed the remains off onto the floor.

"Damned little. It means he took a course in biology in some 'formally recognized educational institution,' and submitted the proper documents to get an equivalency grade credited to him. It's about the next thing to signing your name, 'John Doe, Graduate, Planet of Marshbog Central Kindergarten.'"

"And," said Burgess, looking at the letter, "What is an 'office executive'?"

"A what?"

Burgess waved away the gnats, and shoved the letter across the table. He got up, and pulled out a drawer of the plain steel filing case they'd been forced to rely on since the vrills got into the automatic filer.

"H'm," said Cassetti. "I didn't see that. Frankly, I don't know *what* it is. But if my knees are supposed to get weak when I read it after his name,

for some reason it doesn't work."

Burgess found what he was looking for, brushed off some ants, shut the file, sat down, killed a mosquito, and reread his letter to PDA:

*"Dear Sector Chief-Paley:*

*Please excuse my writing directly to you, as many attempts to call attention to the worsening situation on Vitalia (formerly Novo Sol III) by the normal channels have proved futile.*

*We are faced on this planet with rapidly increasing numbers of insect pests. These include types resembling gnats (of two sizes), mosquitos, wasps, hornets, and ants, as well as types which burrow in wood, shothole metal, and do incredible damage to solid-state, plastic, crystalloid, or molecularized computer and control devices and communications equipment. The only substance these pests do not appear to damage is glass.*

*Not only do we have a disastrous situation here because our equipment is being destroyed, because the chemical insect-control agents sent us do not work, and because these insects appear to have no natural enemies, but also there is a worse danger:*

*Space transports have been and are still carrying goods to and from this planet.*

*What will happen if the actual insects or their eggs should be carried, for instance, to Space Center XII, and from there to other and possibly very distant planets? As the usual insecticides do not work, there is no apparent defense against infestation. If they should, for instance, infest your offices, they could severely damage the central communications facilities and data banks at the very time that the spread of insect infestation began on other planets, and required fast action.*

I am not an expert on insects, but for what it may be worth, have observed the following:

1) *These insects resist all the usual insecticides. Incredible as it may seem, they seek contact with such insecticides and appear invigorated by them.*

2) *Their reproductive rate increases enormously in contact with our technology. It is as if the substances present in our technological devices are in some way stimulants to their metabolism.*

3) *The insects on this planet show a form of group activity such as I have never previously seen or heard of. On the edge of the largest settlement here, Vitalia Center, there are a number of what people here call "bug cities." Many of us have watched the activities in these places through binoculars. If you will imagine a large well branched tree, containing nests of wood ants, hornets, wasps, and other insects—all close together—with all the different kinds of insect pests from miles around carrying the particular substances that they gather to grooves cut in the tree by wood ants, there to deposit these substances in certain grooves, or holes, apparently in trade for other substances deposited in other grooves or holes, by other insects—if you will visualize such a thing, you will have a fairly accurate start for a picture of these "bug cities."*

*To me, it appears that the facts mentioned above show the existence of a situation that has no known precedent, and that warrants urgent consideration, particularly since time may be short.*

Truly yours,  
Clyde Burgess  
Station Manager

Burgess handed the letter to Cassetti.

"Where do I threaten their person-  
nel?"

Cassetti read the letter through, brushed off sawdust filtering down from overhead, and shrugged.

"Just possibly the guy who answered this can't read."

"Or doesn't think."

Cassetti nodded, eyes narrowed as he weighed the letter in his hand.

"It might be that the best thing now is to forget the whole thing. You can't write to PDA. If you get in touch with the Space Police, they'll think you're a crank. If you try to get in touch with anyone else, who'll believe you? I've thought of sending messages—but through channels or out of channels, you run into this same wall of morons."

Burgess nodded. "Anywhere either of us sends a message, the odds are ten-to-one that they won't believe me."

"Exactly." Cassetti looked relieved. "Those odds are just what I'd say, too. Anyway, they already have the facts. Otherwise, why are all the big organizations pulling out? It's the interpretation of the facts that they don't have. They each see it just as a situation where they should cut their losses."

"Well," said Burgess, "take a look, would you, and see if those Teletran message blanks have been eaten up? Then, just in case a supply ship should come in, I want to get some s-grams ready."

Cassetti stared at him.

"What are you going to do?"

"What can I do? There isn't a thing to do here that I can think of. All we can do is squash gnats and run from redstings. There ought to be experiments using birds, anteaters, and so

on, but it needs to be done on a large scale and in a hurry. —So, what *can* I do? Naturally, I'm going to send a message to every place I can think of, including another one to PDA."

Cassetti shook his head. "You're against that standard routine. You'll just make yourself look like a crank! And there are ways for disposing of cranks."

"I know it. But will you tell me what future you or I or anyone else is going to have if, every planet we try to escape to, *these bugs have already gotten there first?* —Let's have the message blanks."

IT WAS nearly six weeks later that the Space Force flew in the first twenty crates of insect-eating birds, ranging in size from types smaller than the swallow to a mean-looking monster almost four feet high, with a pointed bill two feet in length, called the banjo-bird. The banjo-bird ate up whole nests of stinging pests at a time, its long narrow seemingly unsuitable bill snapping open and shut so fast it seemed to be run by invisible cogs, while its fine barbed down pierced the wings of insects burrowing in to sting it, broke off at the base, and left the insects spinning on the ground, to be eaten at leisure.

For a time, the air around Vitalia Center was like the aviary at a zoo, as every insect-eating bird that could be collected was thrown into the contest.

Burgess found himself looking around at the half-collapsed buildings, improvised bird-feeders, ranks of bird-houses on poles, and birds building nests over windows, under eaves, and in the shambles of fallen buildings, as the zzzzzzz-ping-thud of the shothole beetle was replaced by the chirr, squawk, warble, banjo-twang, and screech of innumerable birds by

day, and the silent flitting of countless bats by night.

In the midst of all this, with an oddly high death-rate amongst the birds, but with the bugs clearly beaten, a personal letter arrived for Burgess, delivered by hand by the captain of the ship that brought it. Burgess read:

Dear Mr. Burgess;

*This letter will serve to notify you of your appointment as regional director for our Interstellarcomcorp/Second District of Sector XII, effective the date of your receipt of this letter, with pay increase back-dated to the beginning of this present year.*

*I believe you are already well aware of the accepted explanation for the insect situation on Vitalia. Even Earth, of course, had ruinous insect pests, including types which ate wood, secreted acid, and drilled holes through lead sheathing, but the incredible fit of the Vitalian pests to our technology suggests that they are, in fact, a biological device carefully tailored to destroy the type of technology which we possess, but which we certainly have no patent on. —Others before us may perfectly well have reached the same general type of technology.*

*The hypothetical sequence we picture as leading to this present situation is as follows:*

1) Two opposed sides once faced each other on Vitalia. One relied primarily upon physical-sciences technology. The other on biological sciences technology.

2) The biological side developed insects designed to destroy the basis of the physical-science technology—especially the calculation and control devices. Considering how these insects increased in the vicinity of our one small settlement on Vitalia, the effect,

given a number of large cities, can be easily imagined. Moreover, some as-yet-unknown aspect of one or more of these pests is poisonous to the birds which eat them. We, of course, can fly in more and more birds. The Vitalian technological civilization was apparently planet-bound and could not do it.

3) The physical sciences civilization, itself facing destruction, used its own battery of weapons, and evidently destroyed its opponent.

4) The biodevice—Vitalia's metal, plastic, paper, cement, and ceramic-eating insects—continued until no trace of the technological civilization, even the bones of its founders, was left, except for objects made of glass, which the insects were not equipped to destroy.

5) After a long delay, during which these insects were a prey to malnutrition and smaller parasites (this we've found, is why the biodevice insects, enjoy our insecticide—it destroys their own parasites); at last we appeared. This was the return of happy days for the insects.

I do not need to tell you that these pests, as you warned, represent a serious danger for human civilization. It is not too much to say that your warning probably saved us the loss of large parts of Sector XII, and possibly much more. It is one thing to destroy these pests by a concentrated attack on a small region of a single newly settled planet. It is something else to contend with them simultaneously on hundreds of developed planets and in countless transports. The shothole beetle, for instance, has been found to enclose its eggs in various substances, and can produce a metal-sheathed egg about one-half the diameter of a BB shot, which it glues—"welds" might be a better word—to whatever metal

surface suits its taste. It has shown a willingness to lay these eggs on metal shipping-drums, and the hulls of transports.

We have, however, every reason to hope that this infestation can be held to the level of a nuisance nearly everywhere, while we search for an effective insecticide. Obviously, it is more than a nuisance on Vitalia. The planet appears suitable only for agricultural settlement by-sects which prefer, anyway, to have little to do with an advanced technology.

You may be interested to know how your warning became effective. One place outside Vitalia where these insects are no mere nuisance is Space Center XII, although the cause of the trouble was not yet clear to them. Your s-gram to General Wilforce, however, arrived just as Space Force HQ was experiencing baffling malfunctions in their headquarters battle computer. The master crystal was removed, and found to be infested with shock-generating vrills and wireworm vrill larvae. The General attempted to contact PDA headquarters, and was informed that he was out of his field, and that his communication was "improper."

De-insectization of Space Center XII is now proceeding by sections, under martial law. The luckier sections have such things as chickens to eat up the bugs. The method selected for trial in the PDA section involves the extensive use of such things as spiders, mice, centipedes, and snakes.

I want again to express my appreciation for your timely warning, and the credit it has given Interstellarcomcorp as the one organization on Vitalia that was not completely asleep on its feet.

Sincerely,  
Able G. Cox, Col., I. P., Ret'd  
President.



Burgess, stunned with surprise, handed the letter to Cassetti, who read it through, and looked up wide-eyed.

"For Pete's sake! I expected you to be strung from the rafters, and you get a promotion! But—I *still* say the odds were ten-to-one against you. You were lucky."

"Yes, but there *are* two ways to look at odds in a situation like that."

"What do you mean?"

"The first way is to figure the situation is unbeatable. —You've got only about a ten-percent chance, wherever you turn."

"I see *that*. What's the other way?"

Burgess began to speak, then paused.

Outside the window, a redsting that

had somehow survived till now whizzed into view. A big yellow bird exploded from the loading dock after it. The redsting blurred aside in a flash of speed. The bird's long bill was waiting when the redsting got there. The bird snapped up the redsting.

Burgess said, "The other way is to figure that *ten times* a ten percent chance is a *hundred percent chance*."

"Yeah, but—" Cassetti suddenly looked intent. "*If you kept at it*, eventually that ten percent chance was *bound* to turn up?"

Burgess nodded.

"If you can survive long enough to hit the problem often enough, then, even though the odds are small, *they add up in your favor*."

—CHRISTOPHER ANVIL

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### Nobody Home (cont. from page 77)

saw at the spcne behind the domed skull. "Thanks!" she cried, and turned to see what else still menaced.

"I got the other one!" Jay's shout was cheerful, but then his voice came hoarse. "Somebody's dead on the wire!"

A bloody shape detached itself from the sea-devil Raelle had harpooned. "That's Rit. He tends to hesitate in a crisis—he did it once too often." And now Raelle recognized Dolman Crait—without volition she ran to him, kissed him, held him until she stopped shuddering.

"What's this?" he said. "I thought—"

"You fought the thing with me,

Doll!" She saw his expression start to change, and said quickly, "No—it can't make us lovers. But *this* much—" She kissed him again, dug her fingers into his taut muscles. "This, I really mean!"

His face relaxed again. "Yes, I know." Before, she would have resented his caress—but not now. "And so do I. Well—we'll see you on Earth."

... on Earth. As they watched Jay and Gama, frantically tending Arth Frenkel's leg and finally assuring him he would not lose it, she decided not to tell Dolman Crait how impossibly wrong he was.

—F. M. BUSBY

*Fresh from last year's "Salty for the Cat" (September, 1976), De Vet spins a short but pointed tale about a—*

# **SURVIVAL CHARACTERISTIC**

**CHARLES V. DE VET**

**"M**ATT! Matt! Open your eyes! Please, Matt, wake up!"

"What? Oh. What happened, Gail?"

"I don't know. There was an explosion, and that was the last I remember. Until now. Could it have been the bomb?"

"It must have been. Help me up, will you?"

"You'd better not move, Matt. There's a bug chunk of concrete on your legs. It fell from the ceiling."

"It feels as if the whole ceiling landed there. Give me a hand, will you? I want to sit up. Good. At least I can see around me now."

"Should I pull the concrete off your legs?"

"I suppose you'd better, if you can manage it."

"I think I can. There. Oh, poor Matt. The bone is sticking right through the skin. Does it hurt terribly?"

"Not yet. But it will pretty soon. Right now all I feel is very sick to my stomach."

"What can I do, Matt?"

"You can push up a chair—to support my back. Then look in the left bottom drawer of my desk. I keep a medicine kit there. You'll find a syringe and a bottle of novocain."

"Right."

"Hurry it, Gail, will you? The leg's

beginning to hurt. Feels like it's being jabbed with a hat pin."

"I have it, Matt. I'll fill the syringe and we'll get rid of the pain in a minute. Ready?"

"You know how to inject it?"

"Of course."

"That's right, you've had first aid training. Ow! I felt that, Hon."

"I had to put it in deep. And the hip apparently wasn't as numb as the leg."

"Apparently not."

"That break looks pretty bad, Matt."

"I know, Hon. We'll need a doctor."

"There may not be anybody alive outside."

"Well just have to hope there is."

"I could try to set it myself."

"I'm afraid it's too complicated a job. The fracture is compound."

"It is. I can tell that just by looking at it."

"Then we'll definitely need help from the outside, Gail. Did you notice if the emergency exit is still open?"

"I looked just before I woke you. The ladder is twisted. And the cover over the exit has been blown half off. But I should be able to get out."

"Then you'd better go. There's a pistol in one of my desk drawers."

"I'll get it. But wouldn't you be

more comfortable if I helped you onto the studio couch before I left?"

"I'd like to give the novocain a bit more time before I move. Maybe you'd better stay a few minutes. I'd rather not be alone just yet. I feel so damned helpless."

"Poor Matt."

"You probably could use a little rest yourself. Were you hurt at all?"

"I don't think so. Except that my shoulder is a little stiff."

"I can see a bruised place where your blouse is ripped. I hope nothing's broken. We'll be in bad shape if we're both disabled."

"I'm well enough to go out."

"Good girl. I did a fine job when I picked you."

"Picked me, Matt? For this?"

"You didn't know, did you?"

"I knew only that you hired me as your secretary. And that later you fell in love with me. At least you said you did."

"Oh, that's true enough. But originally there was more to it than that. Sorry, hon, but that novocain is making me drowsy. Let's talk later."

"No, Matt. I want to hear more about this. Now."

"There isn't much to tell—really."

"What did you mean by—picking me?"

"Well— Here's the whole story hen. When I became convinced the bomb would come I had this shelter built—and provisioned. I decided next that I needed someone to share it. Two working together would have a better chance than one. However, my companion should possess certain special qualifications—high survival characteristics, as I thought of them. I chose you."

"Wouldn't it have been more practical to pick another man?"

"Not necessarily. Man does not

exist by bread alone, as I believe the old proverb phrases it."

"I see. Evidently I had those high survival characteristics?"

"Very much so. I made certain of that by having each applicant—for the secretary position—carefully screened. When I saw you, my golden haired beauty, with your long-legged, supple body, I hoped you'd be the one."

"I don't feel very flattered, Matt."

"There's no reason why you shouldn't be. I think of you as being much like myself. So whatever that makes you, it applies equally to me. And I feel no need for apology."

"What about your wife?"

"What about her?"

"Shouldn't she be here—rather than I?"

"I thought about that, naturally, but had to decide against it. Her health isn't too good. She couldn't have survived in the kind of world we're almost certain to find outside."

"You weren't being very sentimental."

"Sentiment was a luxury that I couldn't afford. This will be a time of trouble and hardship. I needed someone like you."

"Hmm."

"You still seem to have doubts. Think of it this way: if my leg turns gangrenous, I'll have it cut off. That's not very sentimental, but it may save my life. I had to use the same logic with her."

"Well, I shouldn't argue, I suppose. I owe my life to you. And you have been good to me, Matt."

"I tried to keep my end of the bargain. Even though you didn't know there had been a bargain."

"We did have some wonderful times. You were a real man, Matt."

"We had almost a year together. A

(cont. on page 101)

*Talmage Powell is a well-respected name in the mystery and western fields; now he makes one of his too-infrequent forays into science fiction with a story about a planet too-aply known as—*

# **BEULAH**

## **TALMAGE POWELL**

**Illustrated by RICHARD OLSEN**

**T**HE ONE-MAN scout car separated from Capricorn, the mother ship, like a wee thistle expelled by a giant pod. Smithson endured the brief G-stress of acceleration matter-of-factly, and when Capricorn was a planetoidal pinpoint of light behind him, he reached from his harness, punched the green button that turned the scout car over to CompNec system, and watched Beulah waltz closer in the visi-screen.

A soft whistle brushed Smitty's teeth as Beulah flaunted her details. Such a lovely and fragile looking little planet! A swirl of pink, gold, and lavender. A crystal ball splashed with joyous colors by a happily uninhibited artist.

Like the raiment of the expensive prostitutes of Maumaut-One (Smitty had the second thought) where spacement who violated offlimits regulations sometimes paid for a night's indescribable pleasure with their sanity.

He heard the faint click as CompNec triggered the Faran detector for the first pass around planet Beulah. A tall, lean, blond offshoot of the rugged stock so carefully chosen to colonize Mars more than a century ago, Smitty stripped his mind of vagrant musings

of Maumaut-One and Beulah's enticing beauties. His objective was frightful in its Gordian-knot simplicity: locate the starcraft—Zenith—which had disappeared without forewarning or protest on Beulah's bosom.

Impossible, of course, such a disappearance.

Thorough probes by unmanned drones were routine when a new celestial body was discovered. Beulah was given full treatment. Before a single human being approached her, she was carefully mapped, measured, sampled, stripped of all her secrets. The detailed results of the unmanned scrutiny were a cause for rejoicing. Beulah sounded almost too good to be real. As planets go, she was barely out of her teens, born a mere two billion earth-years ago. Her gravity, mean temperature, and atmosphere rivaled the environmental pleasantries of an expensive Earthside resort. She was spotlessly virginal, samples from her surface ruling out the possible threat from any life form, animal, vegetal, viral. And being young, she was voluptuously rich in heavy elements, an untapped treasure for an always-energy-hungry race.

Drawing the first manned assignment to Beulah, Zenith had set out as

if on a lark, the envy of every starcraft in the galaxy. In a single warp step, Zenith shortcut the parsecs to a point beyond Ursa Major, orbiting Beulah to once more re-affirm the data of the unmanned probes, and then setting down with a touch that wouldn't have trembled a leaf in the hydroponic tanks.

Zenith's crew burst out to work in the delightful warmth of a small sun with lazy blue tints, in the complete safety of conditions rivaling the most sterile laboratory.

Then silence.

Earth days passed with a growing sense of urgency and mystification. At last the million-in-one conclusion was reached: Zenith's communications systems, including the backups, had simultaneously broken down.

The Capricorn was ordered to the vicinity of Beulah's sun, where she would orbit safely distant from Beulah. Earth Center was unwilling to risk a second starcraft at this stage of the game—but not a one-man scout car.

Which meant Smitty:

Which is hell on ego, even if a man never really thought of himself as indispensable, Smitty thought as the first pass around Beulah came to fruitless conclusion. Smitty had the vagrant wish that the planet's discoverer, Beulah Csweickerzski, had been born in a much earlier era when genius-I.Q. females hadn't had macrocabs and sub-spatial radtrons to play around with.

Smitty spoke in his coffin-like confines: "Pass one. Faran results zero."

"Declinate," ordered the cultivated baritone of Carruthers, in command of the Capricorn.

"Declinating," Smitty acknowledged.

The equatorial regions of Beulah



filled the visi-ports. The closer view separated the colors and made them even more vivid. Beulah's mountain ranges were crystalline and pink spires tinted by the blueish sun. Her canyons and valleys were dainty puckers. Her plains and plateaus were gently undulating waves of golden soil where breezes playfully lifted feathers of sand. Toward the southern polar region, as the car hurtled to dark side, a miniature volcano geysered, as if Beulah had noted Smitty's presence with a saucy wink of fire.

The car swung from the dark side, and Smitty was caressed with a multi-hued dawn of aureoreal beauty. Before he could fully appreciate the vista, a beep from the Faran broke the silence.

A click told him that the Faran, even as it located the missing Zenith, had fed the coordinate information into the CompNec.

Smitty started to speak. But an unaccountable shiver passed over him. A too-warm sweat greased his forehead.

Nerves? Friend, he assured himself, I was born without them.

He moistened his lips with his tongue. "Faran activated."

"Condition?" said Carruthers from the Capricorn.

Smitty's gaze raced over the instrument panel. "Go. All the way go."

CompNec delayed landing for two more orbits before it was satisfied with every minute condition below. During the orbital period, the scout was a clicking, whining, humming cocoon with every device aboard at CompNec's command putting Beulah through the wringer.

On each pass, Smitty kept the Zenith in sight through the ports as long as possible. The giant craft rested on a vast golden plain like a silver egg slightly more than a mile in

diameter at its girth. It appeared undamaged. It suggested that its crew and the two thousand technicians it had ferried here as a primary work force were busy at normal tasks on the two hundred levels of its interior.

But Zenith had arrived for outdoors work, geological surveys, the erection of basic structures around which mining towns would grow. And surely the scout car's presence would have been detected. How come there was no show of interest in the arrival of a fresh human presence?

Smitty wondered if CompNec was hesitating because of the dead stillness down there.

Even as the thought formed, it broke off. It seemed to Smitty that a faint new sound had slipped into the activity of the scout. Not a sound, really. Something akin to a whisper heard only in the core of his brain. A coy, coaxing suggestion to trip the manual, by-pass CompNec, and plunge the scout manually into the beautiful golden sands.

His breath was throttled, his throat dry. He shook off the feeling of slimy fear. Imagination again, he told himself, and I thought it toughened with age. He managed a grin. Maybe I'm younger than the calendar says. Just a frequently horny, always happy kid at heart, that's me.

While the scout was traversing the dark side, CompNec made its decision. The CD panel began clicking off the minutes and seconds to touchdown.

Smitty watched blue-hued early morning burst through the ports and went through the discomfort of deceleration with his usual stoicism, nevertheless expelling a breath of relief when the scout bumped to rest.

A glance through the left port revealed to him that the scout had

landed within fifty yards of Zenith's gleaming mass.

Once more the strange hesitancy quivered through him. He experienced it for a long moment before a stubborn set came to his jaw. Come off it, Smitty, he thought, or I'm going to get sore as hell at you.

With an uncalled-for shortness, he spoke aloud: "Am beginning EVA."

"Condition yellow," Carruthers replied from the distant Capricorn. It meant that every resource within the vast hollow globe was geared to Smitty's personal safety.

Shucking out of his harness, Smitty suddenly froze in a half-erect, very awkward attitude. He tilted his head as if listening.

Condition yellow . . . You, Smitty . . . You're yellow . . . A bumpkin from Mars . . . Why do you think they tagged you for the Beulah landing? Because they're a cruddy bunch of maggots, that's why . . . Little two-legged beasties always ganging up with each other . . . Slobbering protein into their steamy guts . . . Creeping to special places to rid themselves of waste to keep from befouling themselves . . .

The rigidity in Smitty's muscles dissolved. He stood blinking, as if wondering for the briefest moment where he was. He punched the Valan control and watched a section in the scout's side slide rearward to offer a three-by-six feet opening to the golden sands and blue-tinged sky outside.

He moved out and quickly started toward the Zenith. Dimly, he felt that he had omitted certain details but they didn't seem important.

He circled the Zenith, a tall, lithe figure in Bradspan, the almost weightless material standard in space clothing, a shield against heat, cold,

sudden pressure changes, and smaller doses of high energy radiation.

Back in the scout car, the voice of Carruthers was pouring earnestly from the speaker: "What's delaying your checklist for EVA, Smitty? Come in, Smitty . . . Request EVA checklist . . . Come in . . ."

Vaguely, Smitty realised that the scout was emitting yapping noises at him. Why didn't Carruthers just shut up?

Why not trot back and smash the speaker to keep them off his back? It seemed like a great idea, but it could wait. The shimmering veil before Smitty was much more intriguing. A rainbow, no less, touching the feathery golden ground at his feet and sweeping to a height beyond that of the Zenith. With a frightful but delightful little shiver racing through his shoulders Smitty stepped into the indigo and orange transparency.

The golden land was no longer barren, but riotous with the richest vegetation to seek life from a planet. Nothing but flowers of every color everywhere, from tiny silver buds to enormous yellow blooms strewn to farthest distances.

He heard movement, dry, rustling, unpleasant. Squinting, he saw a familiar figure a dozen feet away, writhing through the flower jungle on its bell.

Me? he thought with some amazement.

That creepy, crawling thing is me?

It most surely was. He was writhing and thrashing around, goaded by all his human anxieties, dislikes, uncertainties, giving himself over to reasonless hatred and greed. He was blindly tearing at and destroying the plants, and soon the scene was one of stinking rot, where the land had once been clean.

He backed away, bitterly ashamed,



feeling that he should die for his depredations. And the veil lifted, and once more he was standing in the shadow of Zenith wondering what had come over him.

This wasn't really the time or place for theoretical explanations. He had a job to do here, something to do with Zenith and the reason for the cessation of all evidence of life aboard it.

He was standing before an open, Level One portal in the shady side of Zenith. Comparatively small in the bottom curve of the vast silvery egg, Level One housed little more than secondary airlocks—and the primary lift which could take Smitty to all of the upper reaches of Zenith.

A few strides carried him inside Level One, across the short distance to the lift. He stepped inside and punched a button. The door whisked closed, and a pressure on the soles of his feet told him the lift was moving.

Smitty glanced about. The lift was a cubicle large enough to carry a hundred people or several tons of machinery. He felt quite small in it. Then he suddenly giggled.

"... You find the concept amusing, Pupil Smithson?" Professor Gwaltney snapped the question. He was a thin, stooped, harried man who always seemed steeped in misery. He certainly might have been. With only a third degree certificate, Earthside Institute, attesting the limits of his capacities, he had spent his life teaching in a behind-the-times classroom in the dreary Martian colonies. He disliked his students almost as much as the bitter environment. They were a tough, hardy, often brilliant lot, constant reminders of his own shortcomings.

At his question, the other five-year-old boys and girls slipped looks in Smitty's direction. They were giv-

ing him silent support because he was the professor's pet hate this quarter.

"Perhaps you do not conceive the concept of sentience, Pupil Smithson."

"I believe I do, sir," a snub-nosed, tow-headed, age-five Smitty said politely. "Sentience, as we interpret it today, is a quality of whatever kind, form, or degree, not necessarily dependent on a brain..."

"Yes, yes, Smithson! On your classroom best, aren't you? And the vocabulary! My, aren't we progressing during our turns at the RXI teaching device. Since we are so brilliant today, please recall for the benefit of the class the basic types and forms of sentience found thus far in non-brain material."

"Insects, sir. Sometimes their sentience reaches the level of intelligence. And the rolling stones of Gerviki-A..."

"You hesitate, Pupil Smithson?" Gwaltney's sparse brows shot up in mock amazement.

Smitty's cheeks took on some of the reddish hues of the cold terrain outside. "Having lived all my life here on Mars where rocks are just rocks..."

"Aha!" Gwaltney interrupted. "You're showing the end of your intellectual rope, Pupil Smithson!"

"Sir," and now he was coldly pale with a shard of Martian ice in his young eyes, "just because I have not seen them, I'm not stupid enough to deny the rolling stones. They have been observed for almost a century now."

"In what way are they sentient?"

"When Gerviki-A was discovered, the greenish stones were all in small clusters atop the low hills of the planet. It was found out that if an outside force dislodged a stone, it inched its way back up the hill to rejoin

its cluster. If a stone was removed from one cluster to another it eventually returned to its own cluster. And of course plants on many planets have a form of sentience demonstrated by their reaching for sunlight, withdrawal from frost, their power to hibernate."

"Quite, Pupil Smithson. And the will to live among plants . . ."

Gwaltney and the classroom vanished—and all the plants were dead.

Smitty was standing on Zenith's level three, dwarfed by the tier upon tier of hydroponic tanks crowded ceiling high, their orderly rows leaving only small corridors for passage. The stench of rotten vegetation choked him. He struggled for breath, staring in disbelief.

The scene should have been fresh and colorful. Giant red strawberries from earth; acres of flotney buds from Venus; delicious ochre beans from dome-sheltered farms on Mars; and a thousand other varieties from a hundred other planets to please the sight, smell, and taste of the starcraft's human cargo.

But all were dead. Torn from their roots. Spilled in noisome masses in the corridors or hanging limp over the sides of the tanks.

Smitty stumbled backward into the lift and jammed his hand against the control for Level Central.

"Postulate: Beulah was devoid of all life until the arrival of Zenith," he mumbled. "Postulate: The plants are all dead. Conclusion: The crew destroyed the plants."

Unless the plants had ravaged and killed each other.

He neared the vastness of Level Central with the feeling that a cold compress was squeezing his heart, and he stepped out prepared for shock. But the sight that met his eyes

was beyond shock. He stood paralyzed, unable to admit the reality of the scene.

The dead littered Level Central, grotesquely, in every position, all bearing the marks of the most savage violence. Thousands, bloated or desiccated with rot, in the open grave that Zenith had become. Here was a remains with an eye torn out, throat ripped away. There, a hand with flesh falling away still clutching the mechanics laser pencil from tool storage with which it had cut another crewman in half. A girl with an old-fashioned butcher knife from the gallery between her shoulder blades.

Out of the wreckage and rot rose features familiar to Smitty. He stared at what was left of Bidlow who, like himself, had come from Mars. He jerked his eyes away, and there was Rudemacher.

. . . "If I flunk out of cadet school here on Earthside, Smitty, I'll panhandle my way to Maumaut-One and end it all in one glorious night. You don't have my problems, because you're a tough and smart Martian bastard with the genetic changes worked by three generations in the environment."

Rudemacher had made it. Graduation. Assignment to space vessel. Three promotions. Finally a starcraft. Rudemacher had made it all the way to planet Beulah before flunking out. All the way to the insanity that had caused those aboard Zenith to butcher each other until none was left. How had the last one died? Of wounds? Or by his or her own hand when nothing else remained to kill?

Level Central vanished.

" . . . Do you understand, Pupil Smithson?"

"I think so, sir."

"I think so, I think so," Professor

Gwaltney mimicked. He seemed even more miserable today than usual. "Try to understand, Pupil. Planets are endowed by the Creator with certain powers to nurture life in one form or another, however bizarre the form may appear to us. Mother Earth is a most meaningful connotation, Pupil Smithson. Without earth, you could not have been, even though you are a step-child of Mother Mars. You will never know earth, however long you may go there, as I know her. I was born there." Gwaltney seemed about to weep. "You were not. And for that you are to be pitied . . ."

Gwaltney spiraled off to limbo, and Smitty was once more on Level Central, Zenith starcraft. A soft smile came to his lips. He began moving about, freely now. The lovely golden light of Beulah was filtering through the very substance of Zenith, touching each magnificently rotten face, every beautifully ripped abdomen and slashed torso.

Death . . . Gossamer and golden, like the light of Beulah.

It had remained for Beulah, childless mother, to reveal the fullness of truth to his once-cluttered mind. Even old Gwaltney was beautiful now, being long since dead.

With robot precision, Smitty departed the Zenith, climbed into the scout car, punched out CompNec, took manual control, and lifted from Beulah's warm bosom.

He reached escape velocity on the third orbit. At the moment when he broke Beulah's gravitational grip, he punched the activator that unsheathed the belly-mounted laser. The weapon made the scout car, pound for pound, one of the deadliest antagonists in the universe.

Then Smitty turned on full power and aimed the scout on direct colli-

sion course with Capricorn . . .

"I think he'd coming around now," the familiarity of the voice nagged Smitty. Through a wall of pain, he struggled to place it. Scoville. Of course. Doctor Scoville.

Smitty groaned. "My head . . . what a headache!

He felt a needle bite his arm. "Another half-cc of wequerin should help that," Scoville's voice said.

Smitty was just managing to hang on second by second, never so sick or miserable in his entire life. He felt the hardness of a surgical or examination table beneath his back, the restraint of webbing across his body. Sick bay. Scoville. It all added up. He was back aboard the Capricorn. In sick bay. And he was going to vomit all over the place any moment now.

Then the wequerin settled his stomach and wiped away the headache in one gentle stroke. He opened his eyes. Scoville's big, round face was hovering above him on one side, while on the other Carruthers' thinner more ascetic features were regarding him with deep concern.

When he saw Smitty's eyes open, Carruthers exhaled a breath of relief. "You gave us a very bad moment, punching out the CompNec as you did," Carruthers said. Even in criticism, the commander's voice was pleasant and polite. "We had to hit you with long-range temporary neural implosion to take command of the scout car away from you."

"Thanks, boss," Smitty said. "It was even worth the headache."

"I didn't have much choice," Carruthers smiled. Dark, suave, he glanced at the doctor. "De-briefing? While Smitty's fresh on it?"

Scoville shrugged. "The wequerin will leave him wobbly for a few minutes. Otherwise, he seems no worse

for wear. Sometimes I think even a Jupiterian ice slide couldn't kill these colonial Martians."

"For which we're all most grateful," Carruthers said.

Ten minutes later, Smitty was standing at a tall visi-port in a debriefing room. He was sipping a glass of port, which Carruthers always included in his Earthside requisitions.

Smitty lowered the glass slowly from his lips, studying the breath-taking round beauty of Beulah hovering safely in the far distance.

"To begin with, Commander, we're all going to have trouble believing this one, like the ancients had trouble with Galileo's telescope and Louis Pasteur's invisible bugs. But I think we've just come across our first extremely sentient planet . . . and she

is having none of this motherhood bit. Absolutely. Positively. She wants no brats digging life out of her breasts and lousing up her virginal purity with flotsam and junk and sewerage. No little stinkers scarring her with pain when they yield to senseless emotion and kill each other. No snot-noses contemptuous of her even as they draw life from her."

Smitty paused, still intently looking at Beulah. "None of the headaches of motherhood for that one, Commander, even if she has to practice abortion . . ."

Smitty gave a long sigh. "Of course, that's her side of it. But from our point of view . . . how could anything so lovely be such a double-dyed bitch?"

—TALMAGE POWELL

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### Survival (cont. from page 93)

very, very pleasant year."

"Yes, we danced and laughed and loved, we couldn't ask for more."

"We will again as soon as the worst of this is over. Though for awhile—with this broken leg—I'll be more of a handicap than an asset to our partnership."

"You'll manage, Matt. You always have. You're a very self-sufficient individual."

"I always try to give my best in anything I do. Now I'll need only a little time, and your help."

"I think I'd better go now, Matt."

"That's right. I'll drag myself up to the studio couch later. Don't forget the pistol."

"I won't. Now I'll see if I can make it up that twisted ladder."

"How does it look, Gail?"

"Not too bad. I'm almost to the top already. There I made it."

"Fine. Good luck now. And take care of yourself."

"You know I will, Matt. I have those high survival characteristics, remember?"

"Goodbye, Matt."

—CHARLES V. DE VET

*Tom Godwin is still best remembered for his much-anthologized story of more than twenty years ago, "The Cold Equations". He makes his debut here with a story about the long-smoldering hostilities between England and Ireland, transposed to another world—hostilities that would provoke another race into a—*

# **SOCIAL BLUNDER**

**TOM GODWIN**

**Illustrated by Tony Gleeson**

**P**AUL KNIGHT was almost to the New Ireland shore when he thought he saw a light in the darkness. It was a pale, almost invisible, violet beam and it flickered for an instant down out of the storm clouds before him.

He stopped paddling and stared while the howling wind shoved his boat back against the current of the Border River—the Irish, of course, called it the New Shannon. The violet beam had seemed to be searching for something in the dense Kerry Forest which began at the shore. He wondered if it could have been a detector beam from the ship that the Denebian star trader had fled from and found the conjecture unpleasant.

He looked back the way he had come but saw only the dim outline of the New Britain shore and the lights of Bristol.

Thunder crashed and he dug in with his paddle, convinced he should get himself into the concealment of the Kerry Forest before a flash of lightning revealed him. The violet light might have been his imagination but there was nothing unreal about what an English spy could expect from the burly Irish border patrol-

men. He had seen the battered remains of his predecessor limping down the hospital corridor only two hours before.

Only the Irish, he reflected darkly, would ever insist on carrying their traditional, irrational, distrust of the English all the way to the colonies on a world three hundred light-years from Earth. . . .

The plastic boat grounded on the New Ireland shore. He stepped out and pressed the button that would release the dissolution chemical. Within seconds the boat and paddle disintegrated into powder and the current carried it away, leaving no trace of his landing.

He hurried into the concealment of the forest's edge, there to stop and listen for any sounds of Irish border patrolmen that might by some miracle be audible through the roar of the wind.

"Ah—*hal!*"

It was a girl's voice from just behind him, with a fiendish Irish lilt of triumph to it. Something cold and metallic probed against the back of his neck at the same time.

"Don't move or I'll blow your Eng-

lish head off."

With a sinking feeling he thought he recognized the voice even above the wild whooping of the wind. It would be useless to try to pretend to be Irish, now.

The girl turned on a flashlight and flicked the beam to the river's edge. "You sunk your boat so it wouldn't be seen, didn't you?"

"It had a hole in it."

"So has your story. Turn around—your voice sounds familiar."

He hesitated and the muzzle of the pistol jabbed harder against the back of his neck. With a mental sigh of resignation, he turned.

Her exclamation of astonishment came from behind the glare of the flashlight:

"Paul Knight!"

He knew then, without being able to see the red hair and freckled, snub-nosed face behind the flashlight's glare, that she was the last person he had expected, or wanted, to see this night: Ellen O'Hara, from nearby Kerrytown.

"Well!" he said. "Fancy meeting the Kerrytown mayor's daughter here!"

"Fancy meeting the high sheriff of Bristol County here!" she replied mockingly. "Or you *were* sheriff, when we danced together on the night of the grand opening of the new bridge—remember?"

"And now, just what did you sneak across the river to look for tonight? Did you think you could—"

He did not hear the rest of her words. A sound had come down from above them; a sound that seemed to be not a product of the wind and groaning trees but like the sharp clang of metal against metal.

He looked up into the darkness, remembering the way the Denebian



star trader's ship had arrived in such haste two days before. The ship was now hidden in a deep canyon in New Britain, its electronic camouflage and anti-detection screens up. The little blue-furred monkey-like Denebian had not tarried long near it. He had said, "I'm sure I got away from that world where the Dornians live—fast enough that their masters, the ones they call 'The Teachers,' were too late to send a ship after me but I'm not sure I wasn't detected by another ship not far from here. There was *something* on the screen, a long way off, and I think it was trying to intercept me."

Then he had walked across the Border River bridge into New Ireland, saying that he wanted to see what the Irish might have to trade but giving the distinct impression that what he actually wanted was to get as far away from his ship as possible until the danger of its discovery was over.

He had not been heard of since and the Irish officials denied any knowledge of his whereabouts.

The pistol muzzle jabbed him remindingly in the stomach.

"Answer my questions, spy!"

"I came to see if you Irish actually don't know where that Denebian trader is."

"Do you think we would be liars like the English?" she asked indignantly. "Of course we don't know. What about it?"

"Because he must have been just as scared as he acted, then—and I think the ship he was running from is over our heads right now!"

"And *that's* an old English trick, as sure as tomorrow is St. Patrick's Day, and I'm not—"

He saw the violet light come down out of the clouds again.

This time there was no doubt about it, and it was sweeping toward them with an ominous directness of purposeness.

He reached for the gun in her hand, too late. The light touched them and he felt a numbing tingling as his legs collapsed under him. He was dimly aware of the flashlight dropping to the ground and its bright light on the girl as she fell forward, her red curls framing a face that had suddenly gone as pale as death. He thought he saw the huge, black bulk of a ship dropping down out of the clouds . . .

HIS FIRST awareness was of being cold. Then came the ache of having lain on a hard surface for a long time. He saw cold metal walls and a steel-barred door and knew he was on the ship the trader had fled from.

He sat up on the hard bunk that hung from the wall on chains and saw the girl on an adjoining bunk. The deathly paleness of the stun beam was gone and she was lying like one asleep, her face in repose gentle and childlike and giving no hint of the rebellious temperament that would transform her the moment she awoke.

Her pistol was gone, of course, and so was his own nearest approach to a weapon; his pocket knife. His watch showed that hours had passed and it was already morning outside.

There was a second barred door along the wall beyond the girl. He got up and went to it. What he saw in the room beyond sent a chill like ice water flowing down his already cold back.

It was filled with torture devices, from simple whips and pincers on up to elaborate contraptions with purposes that he did not care to guess. There was even a gallows, the



hangman's noose waiting with an alien, pear-shaped knot.

"SO YOU THINK you can get away with jailing Ellen O'Hara, do you?"

She was awake, sitting up on her bunk with her red hair tousled and the sparks already kindling a fire in her blue eyes.

He gestured for silence and hurried to her. "Don't talk out loud," he commanded in a whisper.

"Try to stop me! Back in the Seventeenth century you English had your Oliver Cromwell who jailed and slaughtered the Irish and took all they owned away from them, and the Irish will damn his name forever, but never again will you—"

She broke off, her eyes blazing with indignation as a new thought occurred to her.

"Oh! And you were so low you threw an unconscious woman in a cell and spent the night with her, you— you—"

He seized her in his arms, clamping one hand tightly over her mouth as she started to scream, and hissed in her ear as she struggled like a wildcat:

"We're prisoners on the ship the trader ran from. Take-a look in that other room—and get your teeth out of my finger!"

Her fighting subsided and he released her. She ran to the door, suspicion and fury still on her face, and he inspected the finger she had tried to bite off. His nose seemed to already be swelling from the bang of her head and both shins pained sharply from the kicking of her boot heels.

She came back, her face sober. She sat down beside him and whispered, "This isn't another English trick, is it?"

"It is not."

"Those things in there—they're to torture and kill people. No wonder that poor little trader was scared."

"What did he tell you Irish?"

"He went through Kerrytown like the devil was after him and out into the forest. We wanted to trade him out of the germanium and beryllium on his ship that you English always charge a robber's ransom for but we could never find him again."

"And on his ship he has mercury and tungsten that you Irish charge us such fantastic prices for which we wanted to trade with him for." Another thought came and he asked, "What were you doing out in a storm by the river?"

"The border patrol was doubled in case the trader tried to get back into New Britain without first giving the Irish a chance to talk to him. That's why I slipped away."

"Slipped away?"

"From the election night dance in Kerrytown. I thought I might find the trader myself, or nab an English spy, or something. It was a dull party, anyway."

"You mean," he said, "one of those boring affairs where no more than three or four Irishmen are fighting on the floor at any one time?"

"Is that so? Well—I wish we had about two dozen good fighting Irish beside us right now."

He sighed, wondering what would happen to them, and said, "That's the first sensible thought you've had yet."

"If they would go to so much trouble to try to find that harmless little trader and kill him, what will they do to us?" she asked.

It was a question that seemed to have only unpleasant answers.

"Those things in there—" She looked at the door of the grim torture

room, and away. When she spoke again it was in a tone almost like that of a child:

"I feel cold, Paul."

She shivered a little, suddenly only a nineteen-year-old girl, the one who had laughed as they danced that night on the new bridge, and later walked with him along the river's edge in the red-gold light of dawn. He put his arm around her and she moved close against him.

"It might be only the stage setting for psychological purposes," he said.

"But everything looks—so shiny and used."

"Maybe they just want us to think they use those things. When they come, Ellen, don't let them think you're afraid, because that's what they want."

Her chin went up. "Did you ever hear of the Irish being—"

Quick, heavy footsteps sounded in the corridor outside, and he felt her grow tense. "*Here they come!*" she said.

He took his arm away from her—it might serve their purpose better for the enemy to think they were strangers—and waited.

There were three of them; powerful, thickset near-humans with bulging foreheads over eyes that were like the cold eyes of actopi. They were heavily armed.

The one in the lead, whose mouth was a cruel, thin-lipped slash, unlocked the door. All three came inside and for ten seconds they studied the two humans with objective curiosity. Then the thin-lipped leader spoke to Knight in Ulek, the simple language that star traders had adopted so long ago that it was known on every civilized world:

"Do not fear us. You and the female will now be taken in for be-

nign judgment."

Ellen spluttered indignantly and Knight said, "Oh?"

The guard frowned. "Speak Ulek only—or do neither you nor the female know it?"

"I know it well enough to tell you this"—Ellen had recovered her voice—"I'm a woman, not an animal 'female', you bulge-headed biological error! And I can tell you something else—"

Knight jabbed her in the ribs with his elbow and said swiftly in English, "Shut up, you little idiot!"

The guard's face had turned dark with the sting of her scorn. He reached out a thick, hairy hand and wrapped it around her arm. "You will now go with me."

She tried to jerk away, loathing and belated terror on her face.

"No—keep your filthy hands off me—"

The guard twisted her arm deliberately, the shine of pleasure in his dead eyes, and she tried to repress a moan of pain. The hairy hand tightened still more and she was forced to her knees, her eyes wide and dark in her now-pale face as she looked at Knight in mute appeal.

He felt the surge of rage and he swung to attack them.

"Damn you—"

A club in the hand of one of the other guards struck the back of his head and everything dissolved in a flash of white light.

**H**E WAS IN a different room when consciousness returned, sitting in a chair with two new guards half supporting him and a painful lump on the back of his skull. He sat up straighter and saw that it was a large office of some kind. A desk was a short distance before him and behind it sat a

fat alien with a resplendant uniform that indicated very high rank; his round, bulging head absolutely hairless. On his right sat an exceptionally muscular and hairy alien, heavy-jawed, who was regarding Knight with the unblinking stare of a snake.

"You have recovered," the fat officer said to Knight in a lardy voice, speaking Ulek. "I am sorry it was necessary for the guards to defend themselves against you. You will please stand up and step forward to be interrogated."

Knight did so, wondering where they had taken Ellen, and trying to put aside the entirely futile worry that the guard might by now have harmed her. If he and Ellen survived, it would have to be by keeping himself alert, not by worry—

"I am Social Director Ralik," the fat one said. He indicated the one on his right. "This is Programs Administrator Brov. I want you to know our names because we have come to your world not as enemies but as friends and liberators. We are known as The Teachers."

"Oh?" Knight said.

Ralik blinked his fat eyelids. "That is not a Ulek word."

"No—it's from my own language. In the sense I just used it, it is a short form of, 'Oh, yeah?'. There is no Ulek equivalent."

"You will please speak Ulek only."

"Yes, ma'am."

Ralik's fat forehead contorted in a scowl. "What does *that* mean?"

"It's a polite term of respect used when obeying the command of a teacher."

"Speak Ulek only. Where did the Denebian trader hide his ship?"

He decided he had better not deny knowing of the ship since Ellen might tell them what little she knew about

it.

"It's in New Britain," he answered. "I don't know where, though."

Brov spoke in a deep, gravelly voice:

"Where is the trader?"

"He disappeared two days ago."

"You have no ship of your own?" Ralik asked.

"No."

"The trader is not what you think he is—but we shall take care of him later. The important thing is this: even though we come from a world far from this one, a world of which you have never heard, we know all about the impending crisis between your race and the Irish and we have come to offer our friendship and assistance."

There was nothing in the cold stare of the octopus eyes to sustain Ralik's claim of friendship. They were going to try to play both ends against the middle and the less he told them, the better.

"What makes you think I'm English?"

"You came from the English side, you destroyed your boat, you were captured by an armed female native of the other nation."

"I'm English," he admitted. "What about this crisis?"

"You mean, you English know nothing of the Irish preparations for war?" Ralik asked, surprise in his tone.

"No."

Ralik shook his head, his fat lips pursed in a serious expression. "Then, if we had come a few days from now, we would have found you already a conquered, beaten nation . . . But we shall first proceed with the interrogation, to make absolutely certain that you *are* English. . . ."

They began to ask him questions which showed that they were not

checking his claim of being English but fishing for information of all kinds about both nations. Ralik was interested in the social systems and the causes of friction between the English and Irish. Brov wanted to know about the relative strength of the Irish and English police forces, the possibility of quickly organizing civilians into military units "for defense", the relative capacity of the English and Irish for the production of arms. Their questions revealed the limited knowledge of the two races such as they might have acquired from some wandering star trader they had captured in the past.

He told as little as possible, not often daring to lie since they would question Ellen and conflicting statements might put both of them in the torture room to force the truth out of them.

"Very well," Ralik said when the interrogation was finished. "Now you know how the Irish have hindered the English in every worthwhile proposal, how certain groups among them have consistently kept their irrational hatred alive, how they have selected sadists for their border patrol. These things you already know, don't you?"

"But this, by your own admission, you do not know: the Irish long ago laid plans for the complete subjugation of your race. The time set for the surprise attack is very near and it will be of such a nature that the English can have no hope of resisting it. According to their plans, the Englishmen they don't kill will be used as slaves. The young and pretty among the English women will be used by the unmarried Irish for—biological entertainment."

Brov spoke in his gringing bass:

"You have seen the torture room? Did you recognize anything there?"

Ralek said, "We have gathered those instruments of man's inhumanity to man from a dozen worlds—worlds which are now peaceful and prosperous due to our guidance and on which violence and persecution are long since unknown."

"But some of them came from this world," Brov said. "You recognized the eye augers, the roasting oven, and other Irish instruments, didn't you? You know, don't you, what happens to so many English who disappear in Ireland each year? And you've guessed, haven't you, how the Irish manage to wring so much information out of them before they die?"

Well . . . quite often an English boy or girl would find an Irish girl or boy irresistible, or vice versa, and one or the other would cross the river and go through the simple ceremony of switching nationalities . . .

"No," he said. "The English never imagined the Irish were like that."

Brov spoke: "And in your own country there are anti-English groups, posing as patriots, who are betraying you every day and sending the Irish leaders full information concerning every move you make."

"When will the Irish attack us?" Knight asked.

Ralik pursed his lips again, in the manner of one deciding whether or not to reveal critical information. "You might as well know—the attack will begin with the bombing of one of your towns tomorrow afternoon. This will be to lure your defense forces away from the prime target, Bristol."

"What will you do to help us?" he asked.

"Under the present circumstances, we can only warn your leaders and lend you arms with which to resist the Irish. Under ordinary circumstances we would remain here

until not only a truce had been made but until our specially trained personnel, serving as impartial advisors and mediators to both sides, had replaced the truce with complete Irish disarmament and complete Irish agreement to peaceful, co-operative co-existence. But, for certain reasons, we must leave the instant the Irish attack has been turned back. However, we will make certain that you are sufficiently well armed to resist the Irish until this ship, or another like it, returns with a full staff of personnel."

"In the meantime," Brov said, "you will not be left completely alone and unaided. We will leave several of our key personnel to advise and assist you in the war until we return."

"Also," Ralik said, "we will leave specially trained men to go to the Irish leaders and try to reason them out of their blood-lust."

"With the hope," Ralik added after a pause, "that the Irish won't slaughter them on sight."

Knight assumed the expression of a man in profound thought.

"Why should you do all that for us?"

"We are The Teachers—a race which has achieved perfection in the understanding of human societies. As such, we regard it as our solemn duty to serve others in establishing peace and harmony throughout the universe, in helping to destroy persecution and injustice wherever they rear their vicious heads."

"But isn't that a lot of trouble to go to?"

Ralik scowled in irritation and Knight saw that the needling might become dangerous.

"I do not understand your questioning," Ralik said. "Surely, faced by doom as you are, you want our help. And your immediate survival is only

one of the ways in which we shall help you. We will be truly your Teachers in all respects. We will give you the benefit of our own great social advances. You will have peace and freedom. You will have factories to produce an endless variety of necessities and luxury goods. We will give you new frontiers opening into a golden age of prosperity and happiness such as you never dreamed of . . ."

Knight pretended to be as pleased by the glowing prospect as they thought he should be and they looked pleased in turn. They asked him more questions about the English and Irish, gave him more assurances of their friendship, and had him returned to his cell.

It was, of course, the old game of divide-and-conquer. Their next act would be to ask the same questions of Ellen and make the same promises of friendship, but with the English as the villains of the piece. He hoped fervently that she could control her Irish temper long enough to think before she believed.

He was sure what they would do after their talk with her and he thought he could see the vague form of a plan whereby they might be made to trip over their own feet.

But first, before it was too late, he absolutely must find Ellen. Without her cooperation, the plan was hopeless.

So far as he could tell, the cell had no hidden peepholes. Neither was there any guard in the corridor outside. Apparently they were content to let him sit alone and unwatched while he observed the torture instruments in the other room and pondered upon their offer of friendship.

They had left the door locked, of course, but it was a fairly simple

mechanical look and the bends of the key used by the guard had been thus and so . . .

A thin steel strip twisted out of the grill of an air vent supplied the key material. At the end of thirty minutes he succeeded in bending it into the right shape and the lock clicked open. He stepped out into the still-empty corridor.

There was a maze of corridors beyond. He was some distance down them when he heard a sound that brought him to a stop in astonishment.

Someone was singing—Ellen!

Then he detected the sombre overtones and he knew she was locked up alone somewhere and she was trying hard to show them she was not afraid.

He crossed a larger central corridor, the one that would lead to the airlocks, and saw that it was heavily guarded at the other end.

He went on, to where the singing came clearly, and there he found the slave.

He was not of Ralik's race. He was indistinguishable from humans but for the largeness of his dark eyes. He was standing like one entranced, listening to Ellen's lonely song:

*"The harp that once through Tara's halls*

*The soul of music shed*

*Now hangs as mute on Tara's walls . . ."*

Knight touched the man. His reaction was not the normal one of turning quickly in surprise. He turned slowly, and looked at Knight with the entrancement fading out of his eyes and dead apathy replacing it. He did not speak.

"What is your name?" Knight asked.

"Faleen."

"Are you a Dornian?"

"Yes."

"I want to ask you some questions."

"I cannot answer questions about the ship or give other such information to anyone but those from the Teachers' world."

The voice was dead, like the eyes. Apparently he had been the victim of either very efficient brain washing or very skillful prefrontal lobotomy.

"The Teachers have come to help my race," Knight said, "and they told me you would be glad to tell me about all the wonderful things they did for your people."

The dead, dark eyes did not change expression, nor did the dead voice:

"To the Teachers we owe our lives, our freedom, our happiness."

Knight thought, *a parrot could put more heart in it*, and began to question him, always with very respectful reference to the Teachers. He learned several things, some of them directly, most of them indirectly:

The Teachers had heard of the English-Irish world from a star trader—Knight guessed it to be the one from Castor who had stopped by the year before—and it had sounded very desirable to them, both as a virgin world to solve their excessive population problem and as a world where much material gain could be derived from the labor of the natives. Ralik and Brov had been sent to take the preliminary actions necessary for its proper conquest.

But Ralik and Brov had celebrated one night in anticipation of the rewards that would be theirs upon their return and in the glow of too much wine they had given conflicting orders to the captain and the drive room executive. The result had been an explosion that wrecked the ship's drive and the ship had sped on through space, off course and out of

control, for months until the drive was finally rebuilt. Now, they were so far behind schedule that each additional day, under their military regulations, would add another month to the demotion-and-punishment period they would have to face upon their return.

Knight asked:

"The Teachers prohibit star traders from having contact with your people, don't they? Why is that?"

"We are very happy and peaceful, now, but star traders might tell some war-mongering world about us and undo all the good done by the Teachers."

"Just what did the Teachers do for you?"

"We were a world divided into races and nations, with irrational racial pride and national patriotism. The Teachers came and my race learned that the other races were preparing for war against it. The Teachers tried to prevent this war but they had arrived too late. Soon, all nations were at war. The Teachers were everywhere, serving as impartial mediators and trying to help all of us toward an end to the wars. But enemy spies were everywhere, too, and truces between nations were broken by surprise attacks which the aggressor nations denied having made, and the hatred and suspicion increased despite all the hard work of the Teachers."

"Which race finally won?" Knight asked.

"None. The wars continued until all races were exhausted, and sick of war and hunger. Then the Teachers took such pity on all of us that they saved us with the Great Homogenization."

"The Great what?"

"The Great Homogenization of all the people of my world—the only way

in which true peace could ever come about. The false concepts of racial and national pride were forever abolished, along with national boundaries and the artificial caste barriers among occupations and professions."

"Why were you in here listening to that girl's singing?"

The dead eyes lighted a little for the first time. "Her voice is so beautiful—I have not heard singing like that since before the Homogenization."

"What were you then?" Knight asked.

"I was a musician—a composer."

Knight looked at the man's greasy clothes.

"And now you oil machines for a living. Why?"

"It is essential work and it was very necessary, for the Great Homogenization to be successful, for all races and nationalities to be shifted and mixed and for everyone to be changed to a different occupation so that no one could say or think that he was superior to anyone else."

Well, that was one way of doing it: Divide and Conquer—Homogenize and Rule. Give them the heritage of the ant hill, make pride illegal and subversive, and what conceivable kind of a rebel individualist could ever arouse and lead enough of them in revolt to cause the Teachers any trouble?

Faleen was staring unseeingly again, listening to the sweet and lonely voice of Ellen:

*"No more to chiefs and ladies bright  
The harp of Tara swells*

*The chord alone, that breaks at night*

*Its tale of ruin tells. . . ."*

It seemed to him that there was dark prophecy in the song. He had learned what he needed to know—



now, there was no time to lose. He left Faleen and went on again.

**D**ESPITE the urgent need for haste, he forced himself to proceed with caution, listening always for the sound of approaching footsteps. Twice he had to hide hastily as crew members hurried past.

He wondered if Faleen might betray him and decided there was little danger. The Teachers had done such a thorough job of destroying his will and initiative that it would never occur to him to volunteer the information.

He reached her at last, in a cell that was almost a replica of his own but for the absence of a torture room.

She was no longer singing but was sitting on the bunk, staring at the farther wall, her only movement the worried twisting of her fingers.

He saw that her arm bore an ugly bruise, blood on it from torn skin, and he felt his teeth grate together as he thought of what he would like to do to the guard.

He whispered her name:

"Ellen . . ."

She looked up, surprised. Then she went to him with the surprise gone and anger on her face. And, mingled with the anger, there was hurt and shock and an unwillingness to believe.

She gripped the steel bars of the door and spoke in a whisper:

"I'm glad you managed to get here—I want to tell you what I learned!"

"I can guess," he said. "But, go ahead."

"Unless they lied to me, I've learned what you English really are: We Irish always thought there was a sort of friendship between the two races, despite our arguments and business competition—how could we

ever have dreamed you were planning all the time for the attack that will start tomorrow, that the harmless little 'trader' is a spy you sent, and his ship will be your warship?"

She took a deep breath. "We are outnumbered, we have no ship—but we'll fight and die to the last one of us before we ever surrender: And maybe—we'll have someone to help us enough that your plans will fail!"

"You forgot a few items," he said. "Such as some of those torture gadgets being of English origin. And the uses that the unmarried Englishmen will have for the Irish girls."

"Then it's all true! How else could you know they said that?"

"Because, you gullible little dope, they told me the same things, but with the Irish as the sadistic aggressors. They want us to hate one another, and go to war."

She looked into his eyes and he saw relief brighten her face.

"Then they lied to me—and we're still together against them, aren't we?"

"I met a native of one of the worlds they've divided and conquered," he said. "This is what I learned from him about the Teachers . . ."

"—AND THAT'S their method," he finished. "Divide and Conquer, Homogenize and Rule."

She did not speak for a moment, then she said, "But, Paul—how vicious! They don't just kill individuals—they kill the heart and soul of the entire world. We have to escape, and warn the others!"

"We can't. The airlock is too well guarded."

"Then what can we do?" Her fingers were white with their unconscious grip on the steel bars of the door. "We *have* to do something—

and we're their prisoners!"

"If my guess is right, they'll want to meet with the English and Irish as soon as possible and get the suspicion and hatred to going. They will use their ship to destroy a town on each side of the river in the morning, to make certain the war gets off to a good start. And, of course, they will have to have some plan that will make certain the English and Irish won't compare notes before they return."

Her eyes widened as she realized the implications."

"And they know that if you and I were released, *we* would compare notes and give away their entire scheme. So, for us, there can only be—"

She did not need to finish the sentence. For them there could be only death.

"Paul . . . what can we do?"

"Their premature celebration put Brov and Rakik so far behind on their return schedule that they're very much worried about the punishment waiting for them and they're not going to stay an hour longer here than is absolutely necessary to get the fighting started between us. They'll need more information from both of us before they send out their dissention parties—I feel sure of that—so our one faint chance is to do this . . ."

THERE WAS an increase of activity in the ship—he wondered if they weren't already preparing to depart for home—and it was with vast relief that he reached his cell undiscovered. He hid the improvised key in the grill it had come from and waited.

Ten minutes later Brov came, with four lesser officials. They were accompanied by two guards, who took up watchful positions just outside the

door. Brov and his staff sat on the bunks while Knight courteously stood before them.

"We are going now to meet with your English officials," Brov said in his grating rumble. "You will tell us whom to see, the quickest way of doing so, and, above all, you will tell us exactly how best to convince them of the attack that will be made by the Irish in the morning and how to convince them that we come to this world as their friends and are to be trusted and believed."

"Yes, sir."

"Since you are English, you have the welfare of your race at heart, haven't you?"

"Anything I tell you will be definitely with their welfare in mind, sir."

"Excellent. But there is something you would do well to bear in mind before you give us any information." The last pretense of friendship was gone from Brov's cold voice. "You will not go with us and get the chance to betray us if such might be your desire. You will remain here and if we do not return, or even if our mission is unsuccessful, you will very painfully learn the purpose of every device in that torture room before you finally die. Do you understand?"

"Yes, sir."

"I suggest you don't forget it. Now, tell us everything we need to know."

"Yes, sir," he said. "The English, like the Irish, have certain rather rigid conventions and rules of courtesy for visiting dignitaries. Of course"—he paused a moment to bring emphasis to his words—"dignitaries who know nothing about the English and Irish are not expected to abide by these rules of protocol."

Brov said grimly, "You will see to it that we know all these rules."

"Yes, sir. Even the type of dress is important, as I'll show you later, as well as the wording of your formal greeting. Since the English have always been a meek and humble race, and never in their history the builders of empires, you must . . ."

When Brov and his staff were ready to leave there was a final ominous warning from Brov:

"It will require about two days for you to die if you have deceived us. This ship is camouflage-screened in the forest near where we found you and it should not take more than what would be three of your hours for this first meeting with the English. If we have not returned by then, the guards will proceed with their duty of pointing out to you the penalties of deceit."

Brov's octopus eyes looked long and hard into Knight's. "Is there any more information you want to give us before it is too late?"

"No, sir. I have done my best."

The two silent guards remained outside the door after Brov was gone.

At the end of another long fifteen minutes, a second pair of guards came with Ellen and shoved her into the cell. The two new guards remained with the other two outside the cell. One of them was the thin-lipped one who had twisted Ellen's arm that morning and the hatred was still on his face. Apparently even the lowliest among the Teachers had touchy egos.

Ellen went to sit beside Knight, her face showing strain.

"How did it go?" he whispered.

"I told Ralik and the four with him what you said to tell him. They questioned me a lot and I kept in mind that he would check with Brov before they left to see if they could catch either of us in a lie."

"It will take a little time for them

to get ready to go," he said. "They plan on a maximum of three hours, though."

"It will be a long wait, not knowing. In another way, if the plan fails, it's so short a time . . ."

She looked into the torture room and he put his arm around her.

"Ralik told me they'll have me tortured to death if anything fails. Did they tell you the same thing?"

"I got the same promise. But everything will turn out all right."

"You can't know that, Paul—so many things could go wrong."

That was true. It had been the only thing he could think of whereby two helpless prisoners might upset the plans of aliens who made a career of conquering worlds. At first it had seemed to have a fair chance of success but now, as he sat with his arm around the worried girl and they waited for what might come, he realized how insane the plan actually was.

"So many things could go wrong," she said again. "I—I guess I'm scared, Paul. It would be bad enough to have to die, but to have to die that way"—she looked at the torture room again—"while these alien monsters watch us . . . Do we have to go that way?"

"No—we can cheat them."

"How? How can we do that?"

"When I crossed the river to look for that trader," he said, "I knew I might be captured by the aliens who were looking for him and I knew they might have unpleasant ways of killing prisoners. So this button on my sleeve is made to eject a poison needle that kills instantly and painlessly."

"Then it won't be so bad, will it?" she said. "A button for me and the other one for you and the show will be over before their fun even starts."

He held her closer and did not tell her that there would be a needle for her only, that the button of the other sleeve was ordinary plastic.

Time passed, and in the stillness he could hear the ticking of his watch. The guards watched them silently, something like anticipation in their alien stares. Ellen's arm was small and cold around his and she kept her head pressed against him so that she could see neither the guards nor the other room.

Once she said, "That was fun that night when the Irish and English bands played together and all of us were dancing out on the river. Remember, Paul?"

And once, when their time was nearing the end, she said, "How awful it would be if I was facing this alone—and I'm selfish and a coward to be glad you're with me, Paul . . ."

His watch showed that three hours and nine minutes had gone by when the end of their period of grace was announced by the click of the door lock. The guards strode into the cell with a metallic jingling of chains.

Ellen's arm tightened around him and her voice came muffled as she pressed her face closer against him:

"So late—I didn't think it was so late . . ."

The thin-lipped guard leader spoke: "The time is up. We will go into that other room, now, and both of you will begin to answer questions." He looked at Ellen with eagerness. "We'll start with the skinning knives."

Her free hand tugged at his sleeve. "Quick, Paul—kill us now, before they can stop you! And good-bye, Paul—good-by . . ."

56 —rellin vo grisdor—"

It was the alarmed shout of a guard farther down the corridor and the

guards in the cell froze in positions of astonishment. Then came the sound of other voices, the tramp of feet, and the choked, anguished voice of Ralik giving an order in his own language and then in Ulek:

"Do not resist—we are the prisoners of the natives!"

English and Irish police and Border Patrolmen swarmed into the ship, chains and handcuffs jingling; the English gathering alien prisoners as they went with grim efficiency, the Irish gathering them with jubilant disregard for injured alien egos or facial features.

"Paul—Paul!" Ellen was saying, her face bright with wonder. "Your plan worked—it worked!"

Then she winced and made a little cry of pain as, in her excitement she bumped the swollen, bloody arm against the wall.

"Before one of your Irishmen beats me to the pleasure . . ." he said, half to Ellen, half to himself, and seized the shoulder of the now-gaping guard who had so deliberately hurt Ellen. He swung the guard around and smashed his fist into the cruel, thin-lipped mouth with all his force. Pain stabbed up his arm but was compensated for by the sound of splintering teeth and the sight of the little octopus eyes crossing in agony. He flattened the nose as the guard went down, then stepped aside as the mayors of Kerrytown and Bristol hurried into the cell; The Kerrytown mayor dropping one of his pistols to hug his daughter and say, "If they've harmed you, child, I'll kill every last—"

"Your plan succeeded quite well, Knight," the mayor of Bristol said. "Rather fantastic in concept—yet how else could you possibly send us warning . . .?"

The major stopped as Brov and three others were herded past the door, their bulging foreheads beaded with sweat and the feet of the English police almost tramping on the tails of their bright green hastily improvised cloaks.

"It wasn't the green cloaks so much," the mayor said, watching them. "There's always green in New Britain on St. Patrick's Day. But green cloaks and painted shamrocks looked rather odd on aliens, you know. And then, when they told us that they wanted to help us because we were a peaceful race whose history had never been marred by pride or empire building—"

There was a clatter and a roar, and Ralik and two others came half running down the corridor, hurried along by Irish police even more jubilant than the police before them. The red cloaks of Ralik and the other two were in tatters and all three were bruised and limping. Ralik was squinting painfully through a pair of black eyes, unconsciously still clutching the remains of an orange banner, on his face the stunned look of a being who had suddenly felt the world drop out from under him and was still trying to understand why.

"And what do you think *we* thought"—the mayor of Kerrytown spoke from beside them—"when these apes came marching into town, dressed in red and singing 'God Save The King' off-kay and out of tune? And then they told us, 'We have come to help regain the glory of your past, in the days before the subver-

sive Sien Fien, when you were led by the greatest man who ever lived, Oliver Cromwell . . .'"

IT WAS an hour later and still they tarried there at the Irish end of the bridge. After what they had been through together, he did not want to leave her. He wondered if she felt the same . . .

"All the excitement is over," she said. "I guess you want to be getting on across the bridge, don't you?"

"I keep thinking, Ellen, about how it's such a long bridge—such a long way to go when you walk alone."

She looked up at him, her eyes like stars.

"Is it, Paul—is it really?"

ANOTHER HOUR had gone by, and they were sitting together on the New Britain bank of the river, when she said:

"It was poetic justice for the Teachers. Their downfall was caused by the very English-Irish differences that they were going to use to conquer us. But still, they succeeded in a way . . ."

"How do you mean?" he asked.

"Their method was Divide and Conquer, Homogenize and Rule. They failed to divide the English and Irish, let alone conquer and rule them, but—"

She snuggled still closer to him. "I have a feeling that in the near future there is going to be some English-Irish homogenizing, after all."

—TOM GODWIN

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# SPECTATOR SPORT

STEVEN UTLEY

NAP 3/C Niori had to chase the P-39 Airacobra down to the deck before he could get a decent shot at it. He was forced to admit to himself that the American piloting the P-39 was an exceptional flyer. Niori had tangled with Airacobras several times before, and he was vastly contemptuous of them: his own Zero-Sen could out-climb, out-turn and out-run them with ease.

But this American pilot was good, extremely good. He had popped out of the sun at fifteen thousand, catching Niori and his wingman Miura unawares. A perfectly timed split-second burst from the P-39's nose cannon had blown away Miura's engine cowlings and disintegrated his canopy, and then, as Miura's fighter lurched in the air and started to fall, Niori had opened up the Zero-Sen's throttle and darted to momentary safety.

It had been an incredible fight, Niori thought. Never before had he seen one of the clumsy Airacobras handled as this one had been. He had quickly gotten behind the American plane, but his opponent had led him on a merry chase all the way down to the treetops, refusing to let him line up the Zero-Sen's gunsight on a vulnerable area. The Airacobra pilot obviously knew better than to try out-climbing the Japanese plane. Now that he had run out of sky, however, he could only manoeuvre horizontally, and Niori kept turning inside his evasive arcs to left and right.

NAP 3/C Niori blew the P-39 in half with a quick, brief hail of shells from his 20-mm cannon. The burning wreckage dropped into the jungle.

"AW HELL," muttered Crenshaw as he tore up his ticket. "I was sure Voorhees'd get 'em both with his first pass."

Brooks grinned at him and tucked his own ticket, intact, into his shirt pocket. "Niori had him as soon as they went into the dogfight. The Zero was a much better plane than the Airacobra. You should've remembered that."

Crenshaw sighed and removed the helmet from his head. The amphitheatre buzzed with voices, some jubilant, some disgusted.

"I knew it," he said to Brooks, "and Voorhees knew it, too. But he was banking on surprise and his cannon to settle matters quickly. He'd downed three other Zeroes with hit-and-run tactics like those."

Brooks shrugged indifferently, rose and stretched. Down on the stage, attendants were disconnecting the two chronopaths from the umbilicals through which they had fed the Niori versus Voorhees match to the audience. The chronopaths, a young man and a middle-aged woman, looked exhausted. The strain of locating and locking in on their respective hosts had left them pale and shiny with perspiration. From his place in the

sixth row of seats, Brooks could see the gleam of sweat in the hollow of the woman's throat.

"I wonder which one was Niori," he muttered, nodding toward the stage as the chronopaths staggered off into the wings.

"Who cares?" Crenshaw said, consulting his program brochure. "They'll have attached themselves to other combatants in time for tomorrow's matinee. White Bull *versus* George Armstrong Custer, maybe."

"That's a bit too much of a sure thing, Larry." Brooks glanced at the brochure in Crenshaw's lap. "You want to stay for the rest of the warm-ups?"

"I'm not sure. I'm intrigued by the show-stopper they've got lined up, though. A four-person team. It just says 'Frank Luke, Jr., Balloon Buster at Large' here. Doesn't say who he's up against."

Brooks tapped his chin with his finger and looked thoughtful. "The name rings a faint bell, but I'm getting no connection. 'Balloon Buster at Large,' huh? Nope. Can't place him."

Crenshaw glowered at the stage, where two fresh chronopaths were being hooked up to their relays. "I really wish they'd let you know who they're gonna have before you get inside. That way, you could do some research on the combatants first."

Brooks gave Crenshaw a mock-appalled look. "Why, that'd take the fun out of it. This way makes it much more interesting. You bet on one of two more or less evenly matched opponents. *Obscure* opponents, for the most part. So Lady Luck still calls the

shots on the betting."

"I don't entirely agree. That Richtofen *versus* Hawker match. You remembered who was going to win, and we placed our money on the right guy, and it was *still* a helluva great dogfight. I enjoyed every minute of it."

The p. a. speakers screeched with static. The audience quietened. "Next match in five minutes," came the announcement. "Corporal James Fitzgerald Simons, United States Army, *versus* Sergeant Jacob Jefferson Holden, Confederate States Army. Fixed bayonets. Gettysburg, Pennsylvania, American Civil War. Please place your bets now, ladies and gentlemen. Corporal James Fitzgerald Simons, United States Army, *versus* . . ."

"Well," said Brooks, "what's it going to be? A bayonet fight, or drinks across the street?"

Crenshaw tossed the program booklet aside and got to his feet. "I opt for drinks, Henry. I bet on a bayonet fight last Saturday."

"Really?" Brooks asked as they began making their way toward the aisle. "Which one?"

"Muto *versus* Martin. Guadalcanal, Second World War. I lost ten on Martin."

"Got it in the gut, did he?"

"Through the throat."

"Why do you *always* favor Americans over Japanese, Larry?"

"Damn it, I thought the Americans *won* that war."

"At a cost, Larry. At a cost."

—STEVEN UTLEY



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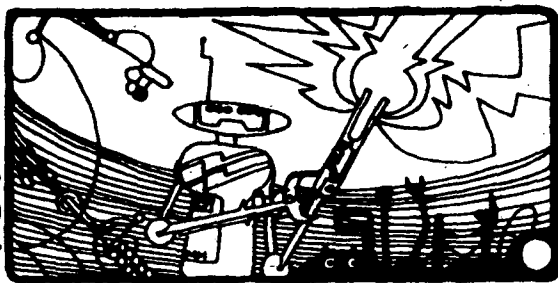
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# ...OR SO YOU SAY



*Letters intended for publication should be typed, double-spaced, on one side of each sheet, and addressed to Or So You Say, Box 409, Falls Church, Va. 22046.*

Dear Mr. White,

I very much enjoyed the F.M. Busby story, "Search," in the December issue of ASF. It was a very good story, but there were some things that kept it from being a *great* story. Now, you said in your editorial preface that he had sold two stories professionally up until 1972, and then some books. I wish that I could see the two previous stories and compare.

The story gave a convincing view of what life might be like for a inter-continuum traveller. The characters were human, too—for the most part. But there were some parts that made you wonder if maybe you had wandered back into the 1930's and Hugo Gernsbeck's AMAZING. . . . .

For instance, everybody seemed to "respect Jay's views". This really got rather tiring. I saw it pop up too many times. Sure, there are lots of people in this world—and bound to be some in the world(s) of the future—but there are plenty of people who would keep trying to get the monogamist (and it could apply in most any situation) to go to bed with them, but then finally give up in utter disgust and revulsion. And then, surely there would be those that would throw up their hands in utter

disgust and revulsion at the mention of the word "monogamist". Not that this is a desirable trait, but is is something that you run into. It would have made the story slightly more real if there had been at least one of those.

Also, the evil captain on Harpers Touchdown had an awful quick change of heart. It sort of reminded one of the big, bad ape-man from stories in the '30's that saw the evil of his ways and then quickly joined sides with the good guys. It was a well-written element in the story, but in the reading you get the feeling that Busby wrote himself into a trap, and had to improvise an ending, giving it the old pulp-fiction style.

But, the thing that bothered me most about the story is how Busby wrote in the story that Woody came back to Glenna from his trip on the Hawk Flight—but not the same Woody that left her. Now, this in itself is perfectly acceptable. It could happen under the circumstances set forth in the story. Busby left out of the story—presumably in the name-of keeping it together—the different possibilities for the birth, death, or miscarriage of Jay in the world from which the second Woody came. Had Glenna even concieved Jay in that world? Or, had Jay gone on and grown as Woody's son in his original world? Obviously not, because Woody surely would have recognized Jay the first time that he saw him. The point was left unclear, but it would have

helped the story if it had been played up. From the rest of the story, I cannot believe that Busby is that clumsy. He could do a lot better.

All in all though, even with these faults, "Search" is a highly readable story. The author shows great promise, and I think that it would do good to see more of him. But, surely, he can take murky and unclear spots and clean them up. Also, I think that the editor could spot glitches and help the author to iron them out. As I said before, let's see more of F.M. Busby.

Keep up the good work in your magazine. It would be a great loss to the field to lose the oldest STF magazine in the business and its sister 'zine, FANTASTIC. Good luck.

CAL JOHNSON  
803 Nth 37th  
Corsicana, TX 75110

*Busby sold one story in 1957; his next sale was "Of Mice and Otis" which appeared in the March, 1972, issue of this magazine. Subsequently we published his "Proof" (September, 1972) and "What Was That?" (April, 1974). These issues are available from the Publisher. Busby has also published a wide variety of stories in other STF magazines, and several novels from Berkley-Putnam. And the sequel to "Search" appears in this issue, of course . . . —TW*

Dear Ted,

I don't know whether to view the Dec. issue of AMAZING with a taint of disappointment, or overjoyment. These opposing views come from your switch from bi-monthly to quarterly. Now I no longer see good ole AMAZING in the racks every month (or every two), but only four times a year. However, not printing the magazine as often as it was brings in more material to print, and a better selection. Definitely the quality of your fiction is better. Which is good.

Sometimes criticizing a story is

rather hard. There are times when you can only say, "I loved that story, and hated this one." That's why I almost regret sucking in my stomach and preparing my analytical mind (to work out saying intricate things, from dull ideas). But: "I *liked* all the stories; *loved* a few, and there were a few that just made my "like category".

"Search" was a favorite. I think I liked the ideas better than the story. But, the writing was good fun. One question: What was F. M. Busby doing from 1957 to 1972? Writing "Gone With The Wind"? [Working as an engineer for the Alaska Communications System.—TW]

"Fundamental Issue" was very good. Of course I love Phillip K. Dick's work, any time. Ah, how much can be decided in a toilet. Actually, Supreme Court justices have one of the best jobs there is. It's guaranteed for life, on good behavior. I guess the Dec. AMAZING was a fundamental issue, also. [But the story was by Philip José Farmer.—TW]

I remember seeing R. Faraday Nelson at the Worldcon. He was wearing a shirt that said I WROTE BLAKE'S PROGRESS on it. "Flesh Pearl" was unique. Its idea, plot, writing were so good, but the "Unfortunately for you, it's extremely contagious" line was a little too easy.

Your editorial was good. As far as I'm concerned, Joe Haldeman is the new Heinlein, Ellison, Bradbury, etc. etc. I just devoured *The Forever War*, and I'm waiting for *Mindbridge* to plop into my mail box. In my opinion, Heinlein was pressured into writing his 'newer novels' (looking over the editorial, it was in your opinion, also). But *The Moon is a Harsh Mistress* is before that period, and it's my favorite Heinlein novel. *Stranger in a Strange Land* and *Time Enough For Love* are good, but they lack something Heinleinesque; Sense of Wonder; action, that could be included in his new novels, also.

*The Future in Books* looks like it'll have a good future. I really liked Malzberg's essay. Enlightening, and wonderful.

Well, Teddy ole boy! Keep up the great work! If inertia has it, AMAZING will be marching ahead of the other magazines.

\*Forward March!\*

RANDY FULLER  
603 E. Vine St.  
Fulton, MD 65251

*I doubt very much that Heinlein was "pressured" into writing his more recent novels; they strike me as works of self-indulgence. I consider the turning point to be around 1959, and the pivotal work to be Starship Troopers the book in which his philosophy first began to overreach the story values—and, significantly, the first of his juvenile novels to be rejected by their publisher. Scribners. This was followed by Stranger, which I consider a failure (albeit a commercial success of huge proportions). Subsequent works had their moments, and Moon is probably the best of these (it won a Hugo in 1967), but none equalled his pre-1959 work.—*  
TW

Dear Mr. White,

I just got my hands on the December issue, and, quite realistically, from cover to cover it's a damn good magazine.

F. M. Busby's "Search" handles an old theme both in time honored traditions and with a fresh newness that makes it a pleasure to read. The next part is anxiously awaited for.

"Patrick Henry, Jupiter and the Little Red Brick Spaceship" is, well, interesting. Astronauts are accountants, engineers and generally unimaginative persons. They do a job and the very essence of that job requires them to be either unimaginative in terms of dreams of glory etc, or dead. But one of the prime movers of sf is the search to recapture the dream.

The feeling of unknown, of mystery is gone from the Earth. Largely, we know what is on the other side of the mountain.

But the universe is vast and we can recognize only a small part, and that which we call our own is miniscule.

We, the romantics (or maybe I should say I . . .) need the dream. The New Frontier. We need the Cause, the Quest for the Holy Grail, the daring to break out from common existence . . . to be different. The fight against the impossible is desperately needed as inspiration. Cold facts are fine, and the world may revolve around them, but they cannot touch a man's soul, if you get my meaning. But the end of "Patrick Henry . . ." gives me hope.

The "Tin Woodman" is good, for a beginning. It needs more. The character of Div Harlthor has solved his problem by running away from it, and by a series of circumstances just a bit too coincidental. I can't see an alien ship accepting a human no matter what talents he may have, that easily. Harlthor is fascinating and I'd like to see more of him.

The cover is well done, but the AMAZING of AMAZING SCIENCE FICTION on the logo should be in red, as was the dot over the i. It would have offset the space-black very nicely. In any case I'm of the opinion that AMAZING is running the best covers out of the big four (AMAZING, Analog, F+SF, Galaxy).

Glad to see the rumors of AMAZING's demise dispelled. Keep up the good work.

MARK A. SPATZ  
1831 Fox Chase Rd.  
Phila., Pa. 19152

*As it happens, since selling "Tin Woodman" to us, authors Bailey & Bischoff have turned the story into a novel—using the story itself, somewhat changed, as the opening to the novel—which will be published by Doubleday sometime in early*

Ted,

The December issue of AMAZING was a disappointment. There were only three really good stories, and only one of those could be rated *very* good. The best of the lot was "Flesh Pearl," a true sensawonder tale, flawed by the silly characterization which seemed to have no point to it at all but generally quite fine. I wish the idea and the story could be expanded into a novel! The other appealing stories this ish were "Tin Woodman," which i read is going to be expanded into a novel, and "Patrick Henry, Jupiter, and the Little Red Brick Spaceship." The former started off very well, with a good bit of insight into what it might be like to have such enormous psi talent and to have had the responsibility and the aloneness that go with it since childhood. But the ending, while competently written, was a cliché of science fiction. Still, it was a good story, as was the typically Martinesque Martin story. "Martha" was two pages of nothing, "Everything is Going to Be All Right" was 4 pages of almost nothing, "The Hardship Post" was a series of cliché statements except for the very last segment which was *good* and fairly original, "Search" was standard space-opera of the kind that often as not bores rather than excites, and "Fundamental Issue" was a bit of conservative polemic that tries to convince us that because some extremes of the various civil rights and egalitarian movements are misguided, the whole thing is perverted and wrong. Mr. Farmer presents a very narrow and ill-thought-out world view, wrapped in what's only a borderline SF story.

I enjoyed your essay on the Sons of Heinlein, i liked the *Science in Science Fiction* column this time, and while i disagree strongly with Barry Malzberg's views on NASA (and many other things as well) i always find him

interesting and enriching to read. And his piece this ish was no exception.

I do hope that AMAZING continues thru the present magazine misfortunes, even if it has to be as a semi-annual mag for a while. And i hope it eventually returns to bimonthly status.

I missed you at MidAmeriCon (altho perhaps not by much), but i'll be at SunCon and hope to see you there.

LESTER BOUTILLIER  
2726 Castiglione St.  
New Orleans, La. 70119

Dear Mr. White;

Like you, I was introduced to sf by a Heinlein juvenile (*Red Planet*) and I've never regretted it. It's unfortunate that Heinlein has allowed prosyletizing to interfere with storytelling in his latest books but I still respect the man for his earlier works. He was the master at developing background without allowing it to interfere with the movement of the plot. This technique will probably be his major contribution to sf.

Your choice of Joe Haldeman as a "son" of Heinlein was apt. I'm glad though that you used quote marks when you described *The Forever War* as a reply to *Starship Troopers*. At a convention in Toronto last year Haldeman said that he hadn't read *Starship Troopers* until after finishing more than half of *The Forever War*. In any case it was an excellent book and certainly deserved its awards. He has also written a "straight" novel about Viet Nam called *War Days*. As far as I know it's out of print but might be available at some libraries.

It seems to me that in the last few years there has been a trend to the type of writing that Heinlein exemplified. That is a good story with a fairly straightforward narrative, a solid detailed background and a central character who accomplishes something worthwhile instead of being beaten down by the system. I'm thinking specifically of writers like Larry

Niven, Jerry Pournelle, George R. R. Martin and John Varley. I could probably name several others but these are the authors who come to mind at the moment.

You seem to publish that type of story more than any other sf magazine. *Analog* might be an exception but the stories that you publish are usually better written. In this issue Farmer's "Fundamental Issue" was particularly good. Farmer seemed to hit just the right balance between satire and seriousness.

I also liked the stories by George R. R. Martin and F. M. Busby. "Tin Woodman" didn't quite make it for me. The idea was good but it lost a lot of impact because there were too many changes in the point of view.

The balance of the issue was mediocre. I read the magazine, two days ago and can't remember what any of the other stories were about. Given a choice I'd rather see a few longer stories than a lot of short ones. The longer stories are usually better.

KEITH SOLTYS  
775 Concession, G4  
Hamilton, Ont.  
L8V 1C4, Canada

Dear Ted,

I have a suggestion for an abbreviated version of science fiction to replace the term "sci-fi". How about "sef" or "SeF": It's short and can therefore be fit on the bindings of short science fiction paperbacks, it's easy to pronounce, which gives it an advantage over "sf", and it's simple enough for anyone to understand. How about it?

Now, about your magazine. You have a lot of big name writers contributing and your interior artwork is superior to that of any other magazine in the field. (*Analog* has the best looking covers.) There are two things I don't like about *AMAZING*: the abundance of typographical errors and the way the stories end, or should I say, don't end. Most of your stories build my interest to a peak only to leave

me hanging on the last word, waiting for a conclusion which never comes. When I read a story, I like to read a complete story, beginning, middle, and end. I get dissatisfied with a story which doesn't seem to end. Elena Pirov pointed out this fact in the December issue about "Nobody Leaves New Pittsburgh" by George R. R. Martin in the September issue. I also read that story and feel that it had a crummy "ending". The idea of the deadmen wasn't original, though, as Elena believed. It was used in the September, 1973 issue of *Analog* by the same author in a novelette entitled "Override". Perhaps "Nobody Leaves New Pittsburgh" should also have been a novelette. If Elena wants to read "Override" I'll loan her that issue of *Analog*.

In closing, Ted, I want to wish you luck with your magazines.

DONALD CLAYTON BOSEMAN  
2032 Melson Road  
Wilmington, Delaware, 19808

"SeF" appears to me to be "SF" with an "e" interposed. If you don't like "sf," why not stick with "sf"?—TW

Dear Ted,

According to *Locus* #194, the SFWA is no longer accepting sales to either *AMAZING* or *FANTASTIC* as credentials for membership. Some statements were made concerning broken agreements and editorial practices involving neither notifying authors of their stories being published or paying for the stories. Would you please respond to this, shedding a little light on the subject from your standpoint? Thanx.

MICHEL BASILIERES  
3684 Ave de Parc  
Montreal 131, Quebec, Canada

*Although I was a charter member of the Science Fiction Writers of America, I dropped my membership several years ago in disgust. Nothing which has occurred since then has*  
(cont. on page 130)



## Editorial (cont. from page 4)

ly those of the *New York Times*). If there had truly been an oddity in the law, perhaps Experimenter Publishing was mentioned as one of several companies affected by it in an editorial urging change. This was all I expected to find.

I found much more.

The case did have an unusual feature, which had resulted in thorough coverage by the *Times*—probably much more thorough than Gernsback liked. Due to this unusual circumstance, the facts of the Gernsback bankruptcy have been preserved for us, and the myths can be exploded.

Let's take a look at these myths, one by one, and then compare them with the facts that can be verified wherever a microfilm file of the *New York Times* is found.

The oldest mention I find of the bankruptcy occurs in Moskowitz's book *The Immortal Storm*, in a passage that seems to have been written about 1945: "Then occurred an event whose details are shrouded in mystery. One day Gernsback was prosperous. The next he had lost completely his magazine chain and his radio station, and found himself in receivership. Though many have speculated on the causes of his financial crisis, naming frozen assets, family hardships and dishonest employees as the core of the trouble, the complete story has never been made clear."

A decade and a half after the event it was still "shrouded in mystery." You can see the myth starting to grow in the nature of the speculations: frozen assets, family hardships, dishonest employees. Apparently it was too painful to believe that the publisher of America's first science fiction magazine had simply gone broke.

The same note is sounded in *The Science Fiction Book: An Illustrated History*, by Franz Rottensteiner, published in 1971: "Although the magazine [AMAZING STORIES] was an immediate success, some legal anomaly forced Gernsback's Experi-

menter Publishing Co., into bankruptcy in 1929." Rottensteiner offers no justification for attributing the bankruptcy to a "legal anomaly." Many companies go bankrupt every year. The *New York Times* reported that in 1928 there were 3882 bankruptcies in New York State. Why should Experimenter Publishing Company be immune?

Sam J. Lundwall offers this version in *Science Fiction: What It's All About* (published in Swedish in 1969 and in English in 1971):

"Hugo Gernsback went bankrupt at the end of 1928, losing all his magazines, his radio station and his home. He was totally ruined. He had kept the list of subscribers, though, and in the beginning of 1929 he sent out a circular letter to all his former subscribers . . . he is said to have received 20,000 subscriptions of one dollar each. Gernsback was back in business again . . ."

Now here is the stuff of heroic myth indeed. Gernsback loses everything including his home and—presumably—has to sleep in Central Park and eat from garbage cans until those subscriptions start to pour in. Lundwall even gets the date wrong. It was 1929, not 1928, and it was not Hugo Gernsback that went bankrupt, but two companies which he and his brother Sidney owned; therefore the creditors could not touch the personal assets of the Gernsback brothers, and had to be content with the companies' assets.

The lists of subscribers, however, were company assets. If Gernsback used them as Lundwall alleges, he would have been diverting the assets of his bankrupt companies. As we shall see, Gernsback was accused of doing just this, and denied it.

Fred Pohl links the bankruptcy with the stock market crash in an article called "The Publishing of Science Fiction" that appears in *Science Fiction Today and Tomorrow*, edited by Reginald Bretnor and published in



1974. Pohl writes: "Gernsback, who had lost control of AMAZING STORIES in the stock disasters of 1929, came back with a new company and two new sf magazines . . ."

But the bankruptcy occurred in the winter and spring of 1929, and Gernsback was publishing his new magazines in the summer. The stock market collapsed in the fall, months after AMAZING had left Gernsback's control.

This is another form of the myth of blamelessness, which we encountered earlier in Rottensteiner. Many people were ruined in the stock market crash; surely no one could blame Gernsback if this great general disaster had bankrupted his company? Most people associate the year 1929 with the Wall Street calamity, and the rest is easy—whether it's deluding yourself or others or both. Unfortunately for the image of science fiction which this myth of blamelessness tries to preserve, the only relationship between the two events is that they occurred within the same calendar year.

In 1975 James Gunn published a paraphrase of the Moskowitz version of the bankruptcy that Dave Kyle was to quote directly in 1976. It appeared in *Alternate Worlds: The Illustrated History of Science Fiction*. Here's how Gunn's paraphrase reads:

"Sam Moskowitz relates a melodramatic story of envy and legal shenanigans which resulted in the collapse of Gernsback's first publishing empire: Bernarr Macfadden, the physical culturist who had built a publishing empire of his own, saw a potential rival in Gernsback and offered to buy Gernsback's million-dollar corporation. Gernsback turned him down. On February 20, 1929, three creditors sued Gernsback for payment, and, according to New York law at that time, three creditors could force bankruptcy. The Experimenter Publishing Company was sold, with Teck Publications taking over *Radio News* and *AMAZING STORIES*, and

Gernsback's creditors were paid \$1.08 for each \$1 owed: The New York *Times* called it 'bankruptcy deluxe.'

"Undismayed, Gernsback quickly founded the Stellar Publishing Company, and offered subscribers to *Science and Invention* an opportunity to receive *Everyday Mechanics*; subscribers to *Radio News*, *Radio Craft*; and subscribers to *AMAZING STORIES*, *Science Wonder Stories*. Eight thousand subscriptions came in; Gernsback was back in business; his publishing empire was reconstituted."

Gunn doesn't waste space on footnotes to tell us where he acquired this information; in fact his book has no notes and no bibliography, though he does favor us with eight pages constituting "A Short History of Western Civilization, Science, Technology, and Science Fiction," in easy-to-read chart form.

The source for Gunn's first paragraph as quoted above will become obvious in a minute. The second paragraph tells the same story told by Lundwall, except that Gunn allows only 8000 subscriptions instead of Lundwall's more generous 20,000.

Kyle gets the credit for not only printing the Moskowitz version directly but for explaining where it came from. He says it appeared "in a brochure intended as a birthday card for Hugo Gernsback" on his 75th birthday in 1959. Kyle also observes that Moskowitz was "closely associated with Gernsback in his later years and thus qualified to report the story."

Whether Kyle intended it or not, these words serve as a subtle warning to the wary reader. Moskowitz worked for Gernsback as editor of a short-lived science fiction magazine in 1953 and—according to Harry Warner, Jr., in *All Our Yesterdays*—"bounced from this fall to become editorial director of three trade magazines in the frozen food field."

Read this, then, for what it is—not an attempt at an objective historical

account, but a birthday greeting for a 75-year-old man by a former employee who got his start in editing from Gernsback. And since we know from *The Immortal Storm* that Moskowitz knew nothing of the 1929 bankruptcy by 1945, there's a strong case for supposing that the version Moskowitz offers came more or less directly from Gernsback himself.

Here's the quotation from the birthday brochure:

"Gernsback's fabulous success and showmanship did not go unnoticed. Barnarr McFadden (sic), health faddist who had climbed to fame and a publishing empire with *Physical Culture*, a magazine featuring articles on sex, diet, nudism and back-to-nature material, saw in Gernsback a potential competitor. . . . McFadden (who lived in the same apartment house as Gernsback, at 527 Riverside Drive) now offered to buy Gernsback out, lock, stock and barrel. Gernsback, heading what had grown to a million-dollar corporation, refused to consider the offer. The Experimenter Publishing Company and all its subsidiaries was a going and profitable concern, he asserted, and so diversified it was most likely to stay that way.

"One day in April 1929, Gernsback was awakened early in the morning by the telephone. It was a reporter from *The New York Times*. He wanted to know what was to become of radio station WRNY now that bankruptcy proceedings had been filed against the Experimenter Publishing Company. Gernsback was incredulous but the reporter insisted the story was true. According to the law of 1929, if three or more creditors pressed the matter, a company or an individual could be forced into bankruptcy, regardless of whether they were solvent or not, merely because they had been late in payments. This was similar to the law which permitted mortgagers to foreclose when an installment was a single day late and thereby gain pos-

session of property worth more than the mortgage. Gernsback now went to the authorities. He showed them the papers from McFadden offering to buy him out. He claimed that all three of the creditors were also McFadden suppliers. The authorities, after considering the evidence, said that there was nothing they could do for Gernsback, but any attempt by McFadden to obtain Experimenter titles would strengthen the conspiracy charges and provide grounds for an investigation. McFadden never did bid for the titles and the creditors, in what *The New York Times* referred to as 'bankruptcy deluxe', received \$1.08 for each \$1.00 due them, certainly an amazing performance for a 'bankrupt' company. The bankruptcy law, which had brought Gernsback to grief was changed, but a week too late to do him any good."

It's fairly obvious that Gunn's paraphrase is drawn directly from these two paragraphs from the birthday brochure. There are several small differences, but one stands out: If Gernsback was incredulous about the bankruptcy on a morning in April, he must have had quite a bad memory, because the petition for involuntary bankruptcy was filed on February 20, 1929. It seems curious that Gunn apparently checked this one item from the Moskowitz myth of 1959 and nothing else (except, of course, for the spelling of Barnarr Macfadden's name).

For this Moskowitz account is false in almost every particular that can be checked.

Let's turn to the news stories on the bankruptcy. The *New York Times* carried a small story on page 32 of its edition for Thursday, February 21, 1929, the second paragraph of which begins: "Liabilities are estimated at \$600,000 and assets at \$182,000. Federal Judge Mack appointed the Irving Trust Company receiver in bankruptcy under a \$100 bond." If Gernsback had been incredulous early

in the morning of February 20, he had composed himself before press time sufficiently to issue this statement: "Plans are being formulated to reorganize and continue publication as heretofore. I am authorized to say this by the receiver."

There is no note of surprise detectable in this news story, no suspicion of conspiracy, and with the figures quoted certainly no hint of a solvent company being railroaded into bankruptcy through a peculiar law.

The next *Times* story on the Experimenter Publishing bankruptcy appeared on page 13 of the March 29 edition. It refutes the statement that Macfadden "never did bid for the titles" and with it the claim that some nameless "authorities" had said that "any attempt by McFadden to obtain Experimenter titles would strengthen the Conspiracy charges and provide grounds for an investigation." Macfadden did bid for the titles, and there is no mention of an investigation or a conspiracy. Such authorities as were involved seemed happy to get the bid, and happier that there was another, higher bid by the publisher who finally did acquire the titles, B.A. MacKinnon.

This news story also provided the raw material for the thoroughly garbled "bankruptcy deluxe" statement. Here's the original paragraph from which this misattributed misquotation has been torn:

"Emory R. Buckner of the firm of Root, Clark, Buckner, Howland and Ballantine, attorneys for the receiver, remarked that if the creditors received 100 per cent on the dollar 'this will be a case of bankruptcy reform deluxe.'"

That's right—"bankruptcy reform deluxe." And the phrase was uttered by a lawyer in the case—it cannot correctly be attributed to the *Times*, which only quoted the lawyer.

And the lawyer was making a hypothetical statement about a situation that did not come to pass. When the bids were first received, they

seemed to promise the creditors full repayment. When analyzed they weren't quite so generous. The Experimenter Publishing Company was sold on April 3, according to a *Times* story published the next day, at a price that guaranteed 95 percent of the creditors' claims. The terms of the sale are described on page 29: "Mr. MacKinnon offered to pay all the creditors in full and to contribute \$20,000 toward the administration expenses. It is expected that these expenses will exceed this amount and to this extent only the creditors will fall short of full payment of their approved claims."

So there is nothing here to indicate that the creditors "received \$1.08 for each \$1.00 due them." Even if the administration expenses had been nothing, there would have been only some \$620,000 to split up, which would be about 103.3 percent.

For the 95 percent figure to be accurate, the administration expenses would have to run around \$50,000, meaning a \$30,000 bite into the creditors' money. This seems reasonable in light of this further quotation from the same story: "At the outset the best bid for the property was \$150,000. . . . The Irving Trust Company, as receiver, found the money to carry on the various enterprises of the bankrupt, and thus averted an early sale at a sacrifice bid."

And even if the creditors *had* received 100 or even 108 cents on the dollar, that would not mean that the company was not insolvent. A company that has to dispose of all of its assets including plant to pay off its current debts obviously is not healthy.

A few questions remain unanswered. Who made that original bid of \$150,000? Where did the February 20 estimate of assets of \$182,000 come from? What inspired Gernsback to make his February 20 statement that plans were being made to reorganize and continue publication?

The final *Times* story on this bankruptcy appeared on page 13 of the April 18 edition; it recounts a hearing held the previous day and bears the headline: GERNSBACKS DENY DIVERTING ASSETS.

Three issues came forth at this hearing. One was "the method of the bankrupt companies in allowing hotels space for advertising in the magazines published by the Gernsbacks for trade bills instead of cash." An attorney for Irving Trust "asserted after the hearing that the publishing companies should have got cash for the hotel advertisements and thus have increased the assets to the benefit of the creditors." The Gernsbacks defended this practice by saying that "the space assigned to the hotels was that remaining unsold when the publication went to press and which it is customary to fill with the publisher's own advertisements or other matter, usually classed as 'fillers.'"

Another involved "Gernsback's Radio Encyclopaedia." Questioned about it, Hugo's brother Sidney Gernsback "said that after the work was printed in supplement form for the company he had added to the manuscripts before obtaining a new copyright for the book as his own."

Finally, Hugo Gernsback was questioned about those subscription lists which Lundwall and Gunn blithely assure us that he used in soliciting subscribers to his new magazines.

Mr. Gernsback emphatically denied that such lists had been used . . . Mr. Gernsback said that every publisher had 'certain secrets' of running his business, and that after thirty years as a publisher he knew the 'trick' of getting names from outside sources and insisted that he had used none of the subscription lists of the Experimenter Company or the Consrad Company." (Consrad was a subsidiary of Experimenter.)

So anyone who continues to contend that Gernsback used the lists from his old magazines to peddle his

new ones will have to offer an explanation that accounts for this emphatic denial.

Finally let's examine that phrase "bankruptcy reform deluxe."

Bankruptcy reform was being urged in 1929 because of the many abuses of the bankruptcy law that had come to light. Many involved a lawyer named Steinhardt who had been named receiver in 126 bankruptcies since 1923, but there were also other abuses, as the *Times* explained in a feature story early in the year, such as the "credit crook" who "found it was easier to steal from creditors than to rob a bank."

While waiting for Congress to change the law, the New York Federal District Court named the Irving Trust Company as receiver for all cases in the district.

Thus Irving Trust came to be the receiver in the Experimenter Publishing bankruptcy—which seems to have been the first big bankruptcy since the court's action—and found the means to continue publishing the magazines and running the radio stations. This action conserved the assets, for clearly a magazine that has ceased to publish or a radio station that has gone off the air is no longer worth as much.

Thanks to Irving Trust, then, the creditors got almost full payment and did not have to accept an offer like the initial one, which would have paid 25 cents on the dollar.

And this is what lawyer Buckner meant when he said "bankruptcy reform deluxe."

I believe that this also accounts for the full coverage given the bankruptcy in the New York *Times*. The *Times* approved of this reform, as well as the legislative reforms being urged by politicians like Congressman Fiorello LaGuardia, and naturally found news value in the workings of the court's new receiver. (The fact that radio stations were involved can't have hurt, either, though no one seems to have compared the situation

with an earlier Gernsback design that combined a transmitter with a receiver.)

It's even possible that the bankruptcy scandals indirectly caused this bankruptcy. The *Times* ran a feature story on the scandals early in the year which, in a paragraph that chanced to fall near the top of the page right under the three-column headline, described how three creditors could force involuntary bankruptcy.

This story appeared on Sunday, January 20, 1929—exactly one month before the petition against Experimenter Publishing was filed.

—THOMAS PERRY

EDITORIAL AFTERNOTE: It appears all of us who quoted Moskowitz on this subject must eat some crow. I recalled the 1959 birthday brochure when I wrote, on page 82 of our 50th Anniversary issue, "AMAZING did not

'fail' before it was 'sold to Tek.' As Sam Moskowitz tells the story it is almost the reverse: the magazine (and Gernsback's parent company, which owned one of the pioneer radio stations in New York City) became the focus of a power struggle which Gernsback himself lost, forcing him to leave AMAZING in early 1929." I was "correcting" Barry Malzberg, to whom I must now apologize. I think it *can* be safely said, however, that AMAZING was not in itself a financial failure, and would not have been folded in any event.

I expect the foregoing points up one problem of scholarship in this field: over-reliance on anecdote, and a willingness to quote a secondary and anecdotal source as a primary source. We are all indebted to Perry for clearing this matter up.

—TED WHITE

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### Or So You Say (cont. from page 124)

*changed my opinion of the organization. Since before I became associated with these magazines the SFWA has treated Ultimate Publications as an easy scapegoat. Although other publishers' abuses have been worse—and in some cases much worse—Ultimate has consistently been singled out for the SFWA's abuse. But then, officers of the SFWA have been chummier with some other publishers. When Galaxy and If, for instance, fell more than a year behind in payments to authors*

*for published stories, an official of the SFWA shrugged authors' complaints off with the news that those publications were in difficulties and the choice was between leaning on them and letting them survive. The official in question is a regular columnist for Galaxy. As far as I know, no such considerations have been raised in the case of AMAZING or FANTASTIC. Under the circumstances, I treat the SFWA's sanctions with about as much respect as they deserve . . .*—TW

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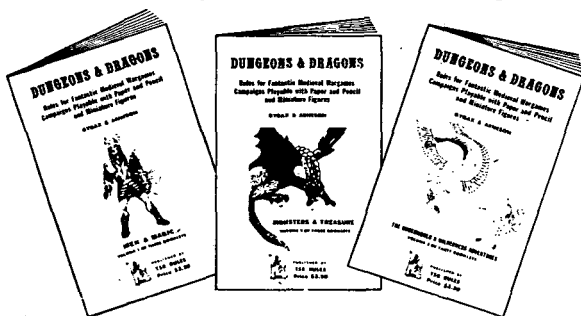
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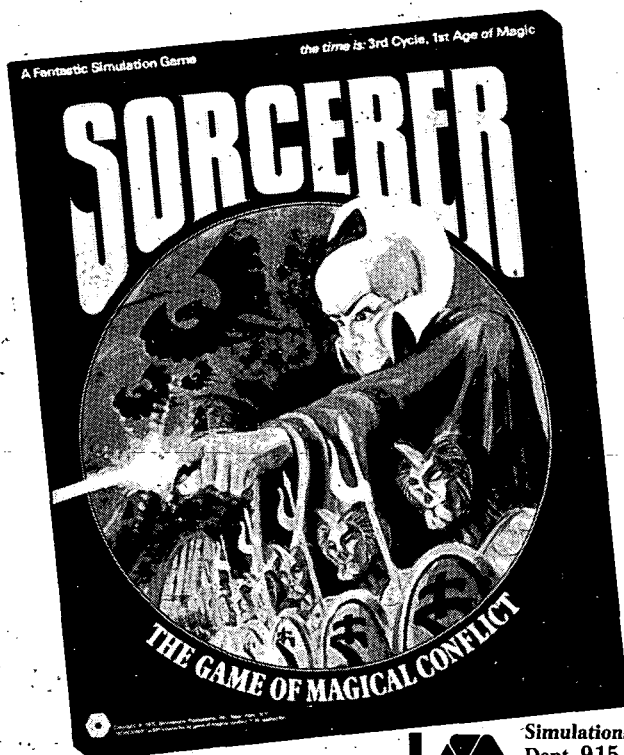
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